Author:
Vernon-Hunt, S

Title:
Minoan religion : A comparative analysis of the cult material from a sample of shrine sites in Bronze Age Crete.

Minoan religion: a comparative analysis of the cult material from a sample of shrine sites in Bronze Age Crete.

Sarah Vernon-Hunt

A thesis submitted to the University of Bristol in accordance with the requirments for the degree of Ph.D. in the Faculty of Arts, Department of Classics and Archaeology.

March 1988.

This thesis has as its basis a comparative study of the material remains of cult activity as found at a sample of shrine sites in Crete in the Bronze Age. The purpose of such a comparison and the object of the thesis is to assess the degree of uniformity or disparity between the types of cult site in terms of their features and contents, and from this to focus on the central questions of the related cult practices and of whether Minoan religion was monotheistic or polytheistic.

The sources for the evidence are the published reports of each site and also personal visits to the majority of the sites and to museums. Unfortunately however not all sites have been fully published or in as much detail as might be desired.

Certain premises underlying this have to be discussed, such as whether the material preserved in the archaeological record can be used to determine religious intentions and beliefs; in effect translating concrete objects into non-concrete forms and ideas.

The relative status as well as the quality of preservation of the material has also to be considered and certain levels of evidence recognised.

Necessary discussion also centres on the chronological context; recognition of shrines; definitions of shrine types; and the way the material is categorized.

The primary organisation of the material is into four site types: shrines within settlements; rural; peak; and cave sanctuaries.

It is then within the framework of locational and chronological divisions that the categories of feature; equipment; votive and decorative objects; and cult images, 65 in total, are discussed.

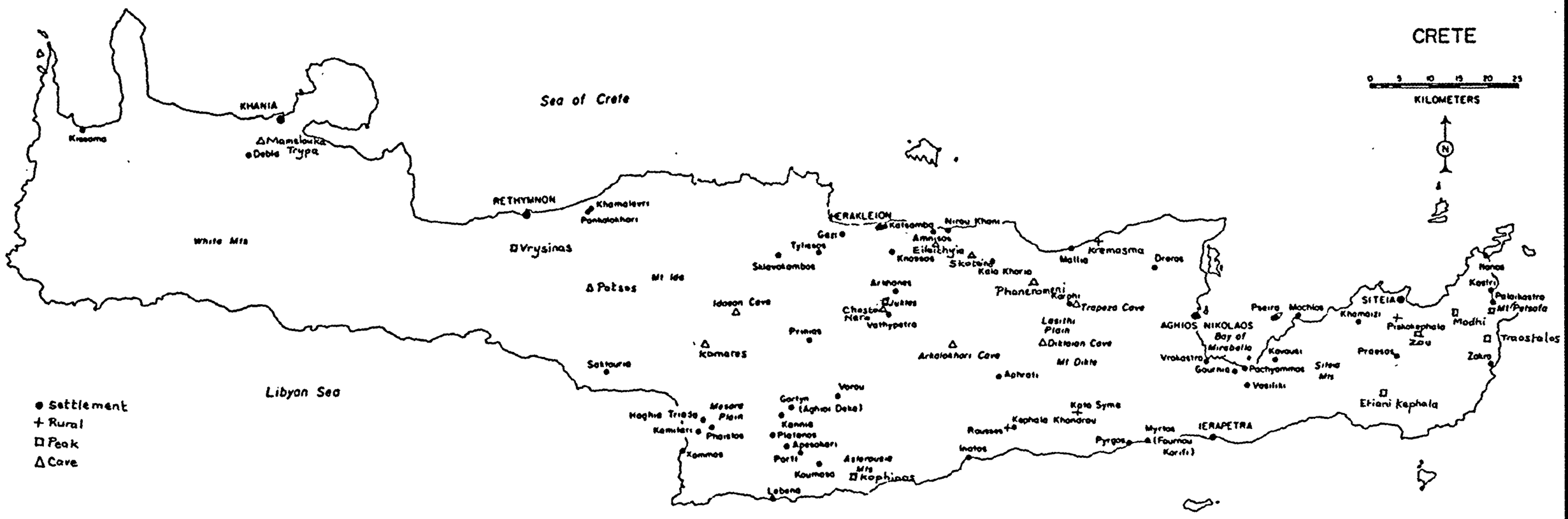
Finally the wider picture is considered, bringing in other factors, such as the socio-economic context, and other types of evidence, namely iconographic and written.

Declaration

The work contained in this thesis was the undersigned candidate's own work.

J.Hunt.

TABLES



Map of Crete

From Gesell (1985)

Chronological table

B.C.		
3000	EM I	
	EM II	Pre-
	EM III	palatial
	MM IA	
1900	MM IB	Proto-
	MM II	palatial
1700	MM III	
	LM IA	Neo-
	LM IB	palatial I
1450	LM II	II
1400	LM IIIA	
	LM IIIB	Post-
	LM IIIC	palatial
1100	Subminoan	

Table of Contents

CONTENTS

CHAPTER ONE

Introduction

1. INTRODUCTION

History of research

Ever since the discovery of the Minoan civilization, as it was called by its earliest excavator, Sir Arthur Evans, the religious aspect of that society has received much attention. It was the excavation by Evans of the magnificent palace of Knossos which allowed a full picture of the ancient Minoans and their great achievements in all fields to be fully appreciated once more. It is not surprising therefore that from this time on the study of Minoan religion has always been an important focus of research since so much of Knossos seemed to its early excavators to be given over to religion. Many of the other now famous sites had also been explored at around this time, notably the caves at Psychro, Patsos, Kamares, Arkalochori and Amnisos, as well as preliminary excavations on the peaks of Juktas and Petsophas (Hogarth (1899-1900); Myres (1895); Halbherr and Orsi (1888); Hazzidakis (1886); Evans (1921) 153ff.; Myres (1902-03), all of which were apparently of primary religious significance.

Then as the other great palaces and larger and smaller sites were excavated they yielded abundant

evidence demonstrating both the importance of religion to the Minoans and the necessity of specialist research on the subject to keep pace with the new discoveries. This process continues right up to the present day with three of the richest and in different ways very exciting sites recently dug in Crete (Archanes-Anemospilia, Kato Syme and Juktas) (Sakellarakis (1979); Lembessi (1972) onwards; Karetsou (1974) onwards) being wholly religious in character and producing startling new evidence in this field.

The study of Minoan religion then has a long history with much work devoted exclusively to it. From the earliest times of discovery up to recent times many individual excavation reports as well as the more general works on Minoan archaeology had to contain some reference to this question. Evans himself produced, prior to all the immense and detailed discussion in *The Palace of Minos* (1921-35), one of the first significant works specifically on Minoan religion, an article entitled 'The Mycenaean Tree and Pillar Cult' (1901), a pioneering study in which he put forward many of the basic ideas and theories which are still of use today, if somewhat modified by more recent discoveries.

This was followed in 1927 by one of the greatest works on the subject: *The Minoan-Mycenaean Religion* by M.P.Nilsson, which was revised and up-dated in 1950.

Nilsson covered every aspect of Minoan and Mycenaean religion, treating them both together and mainly from the view of those objects which he considered to have strong religious associations. He also concentrated a great deal on attempting to trace the course of development of these religions into the classical Greek religion.

Several other scholars later dealt extensively with the question of religion, sometimes within the scope of larger works on the Minoans (Glotz (1923) 296ff.; Pendlebury (1939) 272-5; Hutchinson (1962) 213ff.; Schachermeyr (1964) 140-73). Three full accounts were given by Persson (1941), Picard (1948) with a very extensive bibliography, and Matz in 1958. The next major study devoted entirely to Aegean religion was that by Rutkowski which first appeared in 1972 but has again been revised with new information added (1986). This deals in more detail with the different types of site where cult activities went on, as well as with the different objects found in them and their religious implications. Not only are his conclusions very valuable but also his methodological approach to the whole subject is very important, with a more rigorous attitude to the evidence in requiring concrete proof of religious intentions both for sites and objects; and also in not accepting without adequate supporting evidence many sites which had previously

been supposed to be religious. In his book Rutkowski covered all the sites then known of different types. Earlier Banti had also shown a similar attitude in her work on the cult areas of Phaistos (Pernier and Banti (1951)), discounting as shrines some which did not produce sufficient evidence in her view, and also in the very good survey which preceded of Minoan domestic cult, especially of the so-called bench-sanctuary type (1941-43).

More specific aspects of Minoan religion, either types of site or object, have been the subjects of special studies so that not only do we have very good overall surveys of Minoan religion but also many detailed researches into particular classes of material with religious significance (Alexiou (1958); Platon (1951, 1954); Gesell (1984); Tyree (1974); Metaxa-Muhly (1984). The number and distribution of sites under consideration has also greatly increased by thorough survey of the whole island by individual scholars, especially P.Faure (1964); (1969), and also through the work of the Greek Archaeological Service.

Then in 1980 the First International Symposium at the Swedish Institute in Athens (Hagg and Marinatos (1981)) was entirely dedicated to the subject of religion in the Aegean Bronze Age. The latest information and views were put forward dealing not only with

the most recent discoveries and studies but also involving discussion of the methodology of the subject.

Methodology is an essential foundation of this, as any other, subject and has come under increasing scrutiny in recent years. Professor Renfrew in his book *The Archaeology of Cult* (1985) has done much to develop and clarify methods of approaching material of an apparent religious nature.

At the close of the above-mentioned Symposium it was suggested that what was needed in the study of Aegean religion was '...a detailed analysis of the cult equipment and offerings found in sanctuaries of different types...' (*op.cit.* 217). What is here being undertaken is an attempt at a comparative study of this kind with particular reference to Minoan Crete.

<u>Aims</u>

The aim of this work then is to present a systematic study of a sample of the material evidence which exists for the religion of the inhabitants of Crete from the Early Minoan period to the end of the Late Minoan period, based on an extended and detailed comparison of the features and objects, their presence or absence in the different recognised types of cult site. More importantly, following on from this is an

analysis of the patterns, with the degree of consistency or otherwise which may or may not emerge from such a comparison. It is partly in this approach to the evidence, the attempt to apply a systematic methodology and the conclusions reached from this, that it is perhaps possible to add something to the study of this most interesting and absorbing aspect of Minoan society.

Further, there is a particular question, fundamental to all religions and one which always features prominently in any study of Minoan religion, that is whether it was of a mono- or poly- theistic kind. Was the same divinity a focus of the worship and the recipient of the offerings at all the different cult sites; and where there were multiple cult idols at one site were these regarded as representations of one divinity? Or were there distinct deities with attributes peculiar to them endowing them with separate, defined characters and associated powers over an individual sphere of influence? There are also many possible shades of meaning and interpretation within these very broad outlines.

Most works on Minoan religion do of course contain some discussion of this question, for instance (Nilsson (1950) 389-411; Hagg and Marinatos (1981) 214-15; Renfrew (1985) 432-33), though it still remains one

open to debate. Some have reached their conclusions from the basis of a summary comparison between the various site types. For instance Evans said 'A comparison of the relics found alike in the Cave Sanctuary [Psychro] or on the crags of Juktas, and it may be added in the Palace of Knossos itself, points in fact to a fundamental identity of worship. In the Cave, indeed, the votive clay figurines of the peak-shrine are largely replaced by bronze.' ((1921) 631-32). The apparent differences between the site types have often been noticed, and the range of objects which are usually found in them. A.Karetsou, for instance, in *Praktika* (1974), p.237 and elsewhere, mentions the categories of objects which are either customary for peak sanctuaries, or exceptional, with especial reference to her excavations on Juktas, and to the metal blades found there which, as she notes, are more usually part of assemblages from cave santuaries.

Here it is hoped that the data for such comparisons will be presented in a clearer and more detailed manner than previously, and followed by an analysis based on the evidence thus provided. It is perhaps by such a systematic comparison of the contents of a sample of known shrine sites that there lies the best method of approach to the problem of the precise nature of Minoan religion.

However, before such an analysis can be attempted there are many assumptions and inferences to be clearly set out. To reach any valid conclusions in this matter it is first of all necessary to understand both how the situation we are attempting to describe might manifest itself in the evidence that is available to us; and also whether it is justifiable to reach conclusions about non-concrete, insubstantial matters, that is beliefs and divinities, from concrete, corporeal evidence which has been left by chance in the archaeological record (see Renfrew (1985) 11, for a discussion of Binford's middle-range theory from Binford (1977) 6).

The primary sources of information for religion in a pre-literate society takes the form of both the architectural and natural settings in which presumed cult activities took place, alongside the artefactual contents of these settings, that is the material equipment of all types used in the various rituals and ceremonies which constitute the actual form the worship took, in other words how the deity was worshipped. The equipment represents the medium of worship but the evidence also takes the form of votives and offerings which had been chosen to be dedicated in these cult practices, and the symbolism and imagery surrounding and representing the deity. Another class of evidence

is that provided by iconographic material which may or may not be found in actual shrines.

Thus different aspects of the ritual activities have been preserved in the archaeological record; in the form firstly of the sites of different kinds where religious practices took place, and secondly in the various assemblages of equipment and offerings in richer or poorer states of preservation, mostly probably not complete, and including evidence of a pictorial and iconographic nature. It is through these concrete forms, which for their users were the means of converting abstract ideas into visible expression, that we now have to approach those underlying beliefs and ideas.

It is assumed therefore that the nature of the religion and its underlying beliefs are reflected in the cult practices and ceremonies which were carried out in the various shrines, and that these in turn have their embodiment in the archaeological remains of and in the sites devoted to worship. The method used here to extract from this evidence a picture of the nature of Minoan religion takes the form of a comparison and analysis to assess the degree, at the first stage, of architectural and artefactural similarity which existed between the shrines of different types (as defined later). If, after such a comparison there is found to

be a marked degree of similarity between the appearances of the contents of different sites then there follows a possibility of identity of the deity worshipped in each.

The assessment is not only of whether assemblages from different sites are found to contain numbers of features and objects in common; but it also entails a consideration of what degree of interrelationship exists between the different components, that is that elements recur in association to a significant level. If there are a considerable number of dissimilarities and the assemblages appear to a large extent discrete then this would suggest a wide range of cult practices with little or no overlap and perhaps therefore also distinct deities. In all of this the basic assumption is that we are able to move from the artefacts and features, which form the physical framework of the cult practices, to the beliefs and supernatural world which are their basis.

It is, therefore, also necessary to consider whether an apparent similarity of features and objects would in fact enable us to postulate a single divinity, or whether relative dissimilarity is necessarily a direct result of a plurality of deities. For instance, different cult practices do not preclude the existence of a unique deity; worship of that deity

could involve more than one particular form of ceremony and even emblems and symbols. There can also be a large amount of blurring between what are in fact different aspects of the same divinity, rather than totally separate beings. There are indeed many other reasons and possible factors which could have a bearing on the results which emerge and these should be taken into account. The most important of these, temporal and locational, are dealt with from the outset by the use of appropriate chronological and site type divisions. Others cannot so readily be anticipated and will not be considered until the analysis of the evidence as having possible bearing on the results. It is hard and probably misleading to build into the system of comparison all possible variables and factors as this to some extent pre-judges the evidence.

Perhaps indeed it is far too presumptious to ask the question so directly: whether Minoan religion was mono- or poly- theistic, when there are so many possible variables affecting the evidence and our interpretations of it. Rather it may be better to ask the question slightly differently: since the various cult places and assemblages form our most accessible and reliable indicators of the beliefs, and therefore also the deity or deities of the Minoans, to what extent do any patterns or diversity exist in this

evidence when it is set out, and what may this mean for the nature of Minoan religion?

A primary problem implicit in approaching this whole question is one of definitions. For a site and its contents to be useful in leading to pertinent conclusions about Minoan religion it is first of all necessary to be as certain as possible that the objects being studied were in fact intended originally for cult use; in short we must identify and define the units of study. Therefore, certain methods, definitions and assumptions have to be set out.

Chronology

The question of Minoan chronology is a complicated one which has had much work devoted to it alone. Although it is not feasible, or even desirable, to study it in any great depth here, a chronological framework has to be provided: the temporal context is one of the major variables which must be taken into account at the outset for the comparisons which follow to be valid. Only sites which were in use within the same period will be primarily directly compared, so that it is then possible both to gain a true impression of the prevailing situation with regard to religion at any one period, and also to obtain an overall view of the trends and patterns which may emerge through time.

Where individual sites show evidence of religious use over successive periods each phase of use will if possible be treated as a separate unit according to the chronolgical bands outlined below: these are called site units.

Two major schemes are available to provide a relative chronolgical framework for the evidence. The first is by Evans, and consists of three main phases: Early, Middle and Late Minoan; each having a number of sub-divisions, I, II, and III, followed by further divisions, A and B (and also sometimes again, 1 and 2). This scheme is based on the ceramic styles Evans found at Knossos, which display marked and fine changes, clearly visble with the passage of time. However these changes do not necessarily reflect or directly relate to other, sometimes fundamental, developments in the larger social and economic spheres. Also the styles did not progress at the same time throughout the island so that some lasted longer in certain areas, while others only appeared in the palaces, for instance the MMII pottery style, making precise correlations between areas sometimes difficult (Warren (1969) 2, Table 1 and (1980) 492).

The main alternative division of Minoan chronology is that proposed by Platon. This is based on the major socio-economic changes which occurred on the

island with especial reference to the unique palatial system and its architecture. The four periods it comprises are thus: Pre-, Proto-, Neo-, and Post-Palatial. There are disadvantages to this method also, the main being that they are much broader divisions than those of Evans' pottery based ones. However, these divisions on the whole are sufficient to reflect major socio-economic changes.

This broader scheme of the four major divisions of relative chronology is the most useful here to provide the basic framework, due both to the often major diffculty in many cases of more precise dating of objects, and to the fact that it seems to encompass the use of individual shrines sufficiently well within which smaller changes are generally not possible to distinguish, though where necessary reference will be made also to the more specific distinctions devised by Evans. However there are problems even with this four period system: The Neo-Palatial period, for instance, has been extended and divided into Neo-Palatial I and II, since the palace at Knossos was not destroyed at the same time as the others on the island. Habitation continued there uninterupted for a while and the evidence from it in this period cannot be considered as being of a post-palatial nature, given the architectural and cultural terms on which the system of

periods is based. Furthermore, Knossos is at this time under Mycenaean control.

There is also dispute over certain transitions between the periods, and the feasibility of dividing the so-called Proto-palatial from the Neo-palatial at all has been questioned. The separation between these two periods is no not as clear-cut as was once thought, when it was considered that an island-wide catastrophe of some kind caused the wholesale destruction of the old palaces, clearing the ground for the construction of the new. An alternative theory is one of a natural succession of architectural developments and changes, greater and lesser, taking place at each palace site non-contemporaneously. There would thus be just one, longer palatial period with a distinct high-point in LMI when many of the characteristics considered as representative of the Minoan culture at its best - ashlar masonry, fine ceramics etcetera - appeared. This could be of relevance to sites like Archanes-Anemospilia, which would seem to be right at the moment of change between the two phases as they have been traditionally regarded. The excavator here dates the site firmly as Proto-palatial, transitional between MMII and IIIa (Sakellarakis (1979) 350).

Without some division the palatial period would cover a very long time span and encompass many de-

velopments and changes in different fields. Some differences are apparent between the two phases, such as the noticeable decline, though by no means complete disappearance, of the peak sanctuaries in the Neo-palatial period. Therefore, to enable closer chrono-logical distinctions in the material the proto- and neo-palatial divisions will be retained where possible, introducing also neo-palatial I and II, the latter being equivalent to LMII -III_{A2}.

Very precise absolute dating is another question altogether and is neither so absolutely necessary nor always possible in the present study, dealing as it does with many objects of different types and develop-ments taking place over long periods. A consideration of one particular category such as pottery, would require more precise dating and is a case where very fine gradations of time are essential (Betancourt (1985) 20,67-68,120-22). Sometimes the evidence is itself deficient and it is difficult to obtain dates for objects or phases within a site, due either to conditions associated with the site where the evidence for chronology is confused, complicated or missing, or lack of sufficiently detailed publication.

Difficulties arise particularly at sites which were used over prolonged periods which merge into one another with no clear distinctions; the levels at such

sites, for instance Kato Syme and Amnisos-Eileithyia can be very mixed, so that assigning objects and their associations to definite phases of use is not at all easy. Dating may only be achieved on typological grounds, and this has not always been attempted in publication, or no more than preliminary reports have appeared. The problem of undated material is unfortunately though inevitably recurrent through this study. It can sometimes be partly solved if there is definite evidence for the dating of at least one example of a particular type of object at the site, since this is proof that that category of object was present at the site at that time, even if every individual example cannot be so dated.

However this still does leave some objects and features with no firm dating, though sometimes a date is suggested in publication, or other studies have commented on the material, or again an object or feature category may be included in more than one phase of use of a particular site if it seems probable on balance that this is a likely reflection of the true situation. Of course this is admittedly not satisfactory, but it would be even less so to ignore the presence of undated material altogether, which would in fact be presenting a more misleading and incomplete picture.

The division of evidence into time bands is obviously a fundamental step to take in any study. Only after ordering the information in this way can direct comparisons be made, and the compatibility or otherwise of the material from different types of site be assessed. However, as noted, there are deficiencies in the method chosen. Some relate to the method itself, others are due to shortcomings in the material available. This chronological framework may, on occasion, have to be put aside to allow comparisons to be made outside that context. For certain types of site there is very little evidence of use, if any at all, for particular periods, so that chronologically there is no basis for comparison with other site types in such periods. This means, for instance, the picture obtained from an assessment of the material from peak sanctuaries could not be directly compared with that for, say, lustral basins, or the major cave sanctuaries, since chronolgically they do not overlap to any great extent. Such a comparison, on the basis of the site types and regardless of chronology, could be revealing and useful, though the chronological consideration cannot, in the final conclusions, be laid aside.

CHAPTER TWO

Methodology

2. METHODOLOGY

Recognition of shrines

A necessary first question to address in a study of religion is how to recognise a shrine at all; and how may we define this unit on which all else is based; and also how to identify certain objects as being of religious value? Circular arguments occur very easily in attempting to answer this: shrines may be recognised by typical features and contents which are themselves only given cultic significance in many cases by their context in a shrine. In most situations therefore it is the context and the material together which produce valid grounds for identification.

It is easier to define a shrine's purpose than it is to draw up rules for recognising one: it is a place set apart, in whatever form, reserved for the worship of a particular deity or deities, and for the fulfillment and expression by these acts of the religious aspirations of a people. Such ceremonies used various pieces of equipment and furnishings and it is usually by means of these that a shrine is identified as these are the material evidence of the cult activities having taken place. It is these objects which demonstrate therefore that the use of a

particular room or area was connected with the ritual and expressive side of life; or, at best, no other plausible explanation can be found for the association of objects and furnishings found and for the use of the room or site (Renfrew (1985) 18-21).

Evidence of a useful kind is provided by altars, figurines which have indications of divine status, set apart and elevated, also clear religious symbolism such as votive double axes and horns of consecration assists in recognition. Various features and fittings can also play a substantial part in shrine identification. Altars of the constructed type such as at Juktas, and hearths showing signs of sacrifice consisting of ashes and animal remains with votive objects are consistent with cult use. Other fixtures which are quite frequent features of accepted shrines, such as benches and niches, are only helpful when taken in context with the objects found with them, and other features of the room, since they are also very commonly found in domestic architecture.

Identifying shrines from structure alone is also not easy, since in Minoan Crete they could take on various appearances. They were both adapted from existing natural features, allowing a wide variety of forms, such as caves, mountain peaks and natural enclosures; and they were also built in a variety of

shapes and situations, often only in the form of an architecturally unremarkable room amongst others very similar in design. There is in many cases no clear dividing line between secular and religious architecture, as in many other aspects of Minoan religion. Each case has finally to be judged on its own merits, and it is by such individual consideration of an assemblage taken as a whole with its surroundings that it is possible to arrive at the best method of identifying intentions, rather than trying to isolate any single component to achieve this.

To sum up therefore, objects found in one place were brought together presumably by deliberate choice for cult use or made as offerings, but all with the same underlying purpose: to participate in ritual activity, and it is the character of the whole which is the best indicator of its intended associations. Certain features are important, and may be used as stronger evidence that a room and its contents have implications which lie in the ritual, symbolic side of life rather than domestic and secular. Examples of such are votive double axes and large votive deposits of all kinds: all may be seen as having a non-utilitarian nature and so an explanation for their presence must be sought in another area. Other indications are figurines of special appearance, fine

pottery, signs of sacrifice and burning of incense, special vessels such as rhytons and kernoi, which repeatedly seem to have religious associations.

In the past some rooms and objects were labelled as cultic because of a lack of any other ready explanation; some caution is necessary though there are some circumstances which are not easily accounted for in any other way. Where there is no other apparent plausible explanation of a site it can be designated as more probably of a religious nature than anything else.

Levels of evidence

There are of course still problems in dealing with evidence even from the most commonly accepted religious sites, which may be incomplete or ambiguous. Such might be the case where a large amount of disturbance has obviously taken place. Archaeologically the evidence must be evaluated before interpretation can begin. This is another question of methodology: what may be called levels of evidence. What are being compared in this study are features and assemblages of equipment recovered in excavation, and their associations or otherwise with a particular type of cult site. It is therefore necessary, after having postulated objects and sites as cultic, to determine as far as possible the exact relationship between the

assemblage and its find context, that is to say whether the artefacts are still located in the situation in which they were once used by their contemporaries in the act of worship; or alternatively whether they were found in a certain place at the moment of abandonment when they were not actually in use but were being stored; or again whether they arrived at a particular find-spot as a result of time or natural forces having fallen from upper floors, or by human interference in later ages.

In the study of the interpretation of sanctuaries, as in other fields, certain levels of evidence can be recognised and defined. It can be placed into categories, or levels, according to the degree of preservation of assumed original associations with the place in which the objects were intended to be used and seen as part of the function we are most interested in. Thus it is not just the quality of preservation of the material but also status of the place in which it is found. In this way a cult assemblage found in what may be defined as a shrine room yields more valuable information for this study than a comparable assemblage found in what appears to be store or safe-keeping. In the latter cases the vital relationship between the particular type of cult room with its own features, and the assemblage of objects chosen for use in it is lacking; in the former case, original associations are

preserved intact. There is then the further question of the integrity of relationship between the position of an assemblage as found by its excavators, and its actual original position when abandoned by its contemporaries; any change in its position for whatever reason makes a difference to the value of the information to be gathered from it. When such kinds, or levels of evidence are defined and laid-out, a different emphasis may then be placed on the various categories, and the conclusions to be reached from them.

The best and most helpful evidence, in a scheme worked out in this way, is that which is discovered apparently both *in situ* and in the room in which the objects were intended to have been viewed and used in fulfillment of the main function of worship, that is in an actual shrine room. Thus these assemblages and their surrounds are uncovered as, or almost as, they were once used and abandoned. Such assemblages and the room they are associated with may be called **First Level** or *Level 1* evidence, of a primary, that is unmodified and undisturbed nature. This situation in turn presumably reflects most closely the beliefs and cult intentions of people to whom those rooms and objects had a real religious significance. Such evidence therefore must be considered as the clearest

in determining the patterns of Minoan religion and the meanings behind them.

In connection with *in situ* assemblages it is worth noting that no assemblage is really ever likely to be absolutely complete even if it appears to be largely undisturbed. Part of it may well have consisted of perishable material and some destruction or loss of even more durable items is inevitable.

Examples of such first level, unmodified evidence include the Shrine of the Double Axes, Knossos (m), and room XVIII 1 at Mallia (h). Both contain one of the clearest indications of cult activity in the form of material equipment, that is an altar with objects placed on or around it. In the first case a small LMIII shrine was found apparently undisturbed. Along the back wall a bench served as an altar by supporting the most important objects in the shrine, comprising five figurines, two horns of consecration, and a miniature double axe. Here then, seen much as the Minoan worshippers or officials probably saw it, is an identifiable shrine with figurines and important cult symbols still in place on an altar. It all provides unparalleled evidence for the appearance of a Late Minoan III shrine, with many implications for the identification and interpretation of other shrines.

At Mallia XVIII, of LMI date, in one room of a

complex with probable cult connections, was found a small free-standing, stone altar with tubular vases placed on either side of it.

Of the domestic sites other examples of first level evidence include the Throne Room at Knossos (k), the town shrine at Gournia, the First and Second Palace Period shrines at Phaistos (a) and (d), the central shrine room of Zakros (a), and many of the rooms at the villa at Kannia. A rural sanctuary discovered in a very good closed context with three separate probable shrine rooms is that at Archanes Anemospilia. Most of the peak sanctuary sites have been to a greater or lesser extent disturbed, due to their exposed nature. They, like caves, also have a less formal lay-out and fewer structures, tending naturally to a dispersal of objects. Juktas and Petsophas are peaks sites which have been well excavated, and of many caves discovered good examples of cult use are found in those at Arkalochori and Psychro. In all these cases the evidence has remained very closely connected to the site and the association of the objects to their particular site is clear though much disturbed. It is therefore possible to relate a group of objects to a site and its features, but much harder often to determine precise periods of use and which objects belong to which. They are therefore a single context

and are perhaps best defined as Level 1 but of a modified nature.

A **Second Level** of evidence, with its own implications, may be seen to be formed by store-room and repositories containing cult material, rather than actual cult rooms. It is again important to ascertain whether the objects are *in situ* as left by their original users. The main distinction between first and second level evidence is that in the latter the assemblage had been abandoned not in the place where ritual activity took place, but elsewhere and is one step removed from the primary scenes of worship. Such material does have definite cult associations and must be considered and its connection with a particular shrine is usually clear.

Subsidiary rooms attached to shrines did exist, as examples from Zakros and Phaistos show. In complexes of rooms devoted to religion some served as stores, treasuries or preparation rooms. Objects were possibly kept in such places when not in use in specific ceremonies, and only brought in to the shrine room proper on particular occasions. The number of such occasions could conceivably have been few. Some rituals may have been seasonal with whole groups of related objects stored for large parts of the year. Others may have not been required in the shrine proper

at all and only used in preparation, or stored permanently as the treasure belonging to a deity.

A good example of such a stored assemblage can be found in the shrine Treasury at Zakros (a), where a large deposit of very fine vessels of a cult character was found. A much earlier (EMII) and less wealthy store is that at Myrtos where a subsidiary room off the main shrine (91 and 92 respectively) contained the remains of sixty-six vases packed into a space which seemed too small and cramped to be either living quarters or a workshop and much more probably was a store belonging to the shrine, which opened into it.

Workshops and the rooms of craftsmen, either in different quarters to the shrine (such as at Mallia, quartier Mu) or directly connected with, and in the service of the shrine (as at Zakros (a)), might also be expected to yield objects of a religious character. Such evidence can be closely related to other aspects of Minoan life apart from the religious, such as economic, social, technological and artistic. Its relevance for the study of religion is also thus removed from the first level but can be included in the second.

The Temple Repositories at Knossos are the best example of a very particular and different type of stored assemblage, which forms Level Three of evidence.

This material seems not to be so much a stored assemblage in the sense of being part of the shrine's apparatus kept in the repositories ready for further use, but rather to be a shrine assemblage finally deposited. The two cists appear to contain the complete contents of a shrine, including equipment and cult images, removed from their original position and deposited and sealed. The exact reasons for such an action can only be guessed at. These include perhaps attempts at appeasing the divine powers against impending disasters, threat of destruction or theft, dedications for a specific purpose, foundation deposits or the ritual burial of the contents of an important shrine after a disaster, which were too sacred to dispose of in any other way. There are some indications of where the reason may lie: a sense of urgency is detectable - the objects are not carefully put away but seem to have been almost thrown in. Two parts of the same figurine were found in different cists and others were incomplete, which were then sealed making recovery difficult and unlikely. There were also fatty deposits and animal bones found in the layers above the respositories suggesting animal sacrifice.

The material from these Repositories is extremely rich and of great interest in the study of Minoan religion, but with regard to this study the evidence is incomplete. Not only are the reasons for the removal

of the objects unknown, which must have some bearing on their interpretation, but more importantly the room in which they were once located and used is now unidentifiable. There is no way of knowing whether the objects were associated with any particular type of room, its special features, or how they would have been arranged or seen. There are not many of such stored level three deposits of what appear to be the entire contents of a shrine.

In postulating a system of levels of evidence to deal with the different kinds of situation presented in the preservation of the material, and to assess the importance of each for this study, another vital distinction has to be made and that is between *in situ* or primary evidence, and that which has been disturbed and therefore modified since its abandonment by contemporary users. The ideal situations defined for Levels 1 and 2 above, that is recognisable shrines and contents, and storerooms, repositories and workshops connected with religious life, have been described as if found *in situ*.

This however is not always, or even usually, the case. It is far more likely that certain disruptive and destructive agencies have been at work in the intervening period, either the forces of nature or the interference of man both unintentional and deliberate.

The deposits in this way are no longer found in their original contexts and the relationship between an assemblage and the place it was intended for is not clear. Many details are lost, not only of the objects themselves, but also such aspects as the precise nature of the room they were intended for and any special associations between the objects and particular features of the room which might have existed.

A fairly common occurrence in settlement for instance, is the collapse of upper stories and the dispersal of objects from them. This is a likely explanation for a deposit with religious significance including fireboxes, tripods and bowls found in the rubble of the collapsed exterior south wall of Mallia, quartier XIV (f).

This kind of evidence is here called modified evidence. Although in such cases the assemblage is still of interest great caution must be used since such disruption inevitably means that it is less certain than usual that the assemblage is complete. There is also the added confusion and uncertainty arising from such occurrences of whether what appears to be a religious assemblage derives from either an actual shrine, a store room or some other kind of subsidiary room, as well as a complete severance of associations between objects and details of architecture and rela-

tive position in a shrine.

It is also true at all the levels of evidence that foreign objects may, through the same processes, find their way from outside into a shrine, and confuse the assemblage in that way. Such intrusive elements could seriously alter the appearance of the collection of objects in a room. An occurrence of this kind should be considered and discounted if necessary. For instance, Evans considered that the crystal inlay plaques and other fragments found in the lustral basin in the Throne Room complex at Knossos had fallen from above. Not only should they then be separated from the discussion of the implications of the Throne Room itself and its contents, but there is also nothing to suggest, as there may be in some cases, that those relics were in any way connected with religious practices.

There are also many occasions when objects are found completely without a proper context and with little or no indication of their true provenance, but which may, by reason of comparison with objects from religious contexts, be themselves for religious purposes. These can either be completely chance finds which for some reason have arrived at a spot away from a known site, or have been looted or discovered accidentally and passed down through private hands.

It is also possible for isolated finds to come from the vicinity of known shrine areas without being able to pin down a precise provenance. For instance, from the villa at Kannia, which seems to have had at least five separate shrine rooms and where much was found *in situ* or nearly so, came parts of female figurines not found in any of these rooms. They almost certainly come from one of the surrounding shrines, but precisely which is only conjectural, as are the reasons why, when much else was relatively undisturbed, these were damaged and scattered in some way. At Phaistos some very interesting and apparently significant objects comprising an unusual human head rhyton and a number of pieces of metal blades, were discovered outside room 63d. This room has been identified as having ritual connections and takes the form of a lustral basin in use in the neopalatial I period whereas the rhyton has been dated as post-palatial. The former cult use of the area may throw some light on the nature of the objects found outside it, especially considering their own nature. However there is nothing to connect the finds absolutely to a shrine, or to provide a satisfactory explanation for their situation. The value of the evidence such finds provides is greatly diminished, though they may themselves be of intrinsic interest. These chance finds

with no accurate context or find-spot or relation to a larger assemblage but of a cultic character, form the **Fourth Level** of evidence in this study, which is also modified.

Evidence of a different kind, but of immense value, comes from pictorial and representational sources, in the form of seals, rings and occasionally frescoes. The evidence that comes from these sources is more eloquent in many ways than that of the majority of ordinary artefacts found in cult areas, and in a society whose script was still in its infancy, pictorial information is probably the closest we can come to an appreciation of the more abstract ideas inherent in any religion. A further reason for the importance of such sources lies in the fact that the scenes depict action, the actual activity of worship involving details which may determine the function of actual objects found, whose precise purpose and importance might otherwise only be suggested. The scenes fit together some of the pieces of evidence which do exist in the form of material objects, such as altars and cult vessels, with aspects which are not so certain, such as the appearance of buildings and sites of outdoor worship, and place in them actual people and deities in human shape to form living cult scenes of ritual and worship.

The scenes thus produced fill in the less concrete gaps in our knowledge in that they reproduce what would leave no archaeological trace as such. The artist is making visible what actually took place, but is not discernible from the archaeological remains alone. Certain figures in the scenes have been interpreted as divine, from the presence of a bird, or from their obvious seniority as being recipients of worship. This is clear evidence of how the Minoans visualised their deities in a more human and less stylized form than the majority of plastic idols, (the figurines from the Temple Repositories being obvious exceptions). Also, on the rings and gems the divine presence is involved directly in scenes of worship and ceremonial, which represents at its closest and most personal the relationship the Minoans felt between themselves and their divinities. As such they make visible and accessible what would otherwise be intangible elements of cult life existing only in the religious imagination of the Minoans.

Such evidence does also however have some limitations due to the small scale of the representations which mean the artist is sometimes forced into using 'shorthand' devices to depict scenes which are not always fully comprehensible. The medium also places restrictions on what can be achieved.

Such are the postulated levels of evidence; forming a basis for dealing with the different values in the information available. To summarise: The **First Level** is evidence gained from an assemblage of objects found in the context of highest and most important cult activity, that is a shrine. The objects thus retain their direct religious associations with the place of worship and the whole presents the closest material picture of Minoan religion as it took place, though now devoid of action.

Second Level evidence is that which is found no longer in the place it may be assumed it was originally intended to be to fulfil its main function; or else the material was always kept apart from the actual shrine room; the effect is the same, the objects are removed from the place of actual ritual activity. Storerooms, preparation rooms, workshops, treasuries, all would come into this category since they are part of the shrine complex and contain religious objects which may have been used in the shrine proper, but they are not the room where rituals took place.

Both the above definitions assume that the material was also found *in situ*. An ideal situation which however is not always the case; disturbed or modified evidence at either of the above proposed levels is a frequent occurrence. The original context

of such material can sometimes be suggested: the collapse of upper stories forinstance, leads to the dispersal of material from them onto the ground below. Even so, and there are cases where even such limited information as this is not available, this kind of evidence is of diminished value. The chances that the assemblage is not complete are much increased and many details are lost. The **Third Level** consists of the few shrines which seem to have been deposited *in toto*, possibly permanently, so that all parts of a shrine and its subsidiaries are placed together in one store, removed from their architectural associations. There are also chance finds, individual objects or very small groups, with no real provenance and which are our proposed **Fourth Level** evidence.

A possible further level or category of evidence could be that provided by tombs. There are sure indications that cult activities were carried on in and around tombs, especially the round tombs of Southern Crete. The Haghia Triada sarcophagus and its remarkable paintings also point to the existence of ritual activity surrounding the dead entailing a possible belief in the after-life. Tombs could then be included as a separate type of site and another category of evidence in which objects have apparently been re-used in a new context for a specific purpose. However so much else is involved in this subject: the

whole history of tomb architecture and burial habits, the problem of the development of social hierarchy as well as the possible beliefs in after-life and the form these took, that cult material from tomb sites will not be included here.

Documentary Sources

Published archaeological site reports are the main source, apart from visits to sites, used for the information studied here and accuracy and detail of recording, together with depth of reporting are essential. Reports are the only way of obtaining certain kinds of information and contain the most detailed lists of objects found down to the most ordinary and insignificant, and which would be very hard to find and study individually. One deficiency of such a method is the variability in the thoroughness of the published accounts, as is demonstrated by a comparison of the available documentary sources on the immensely rich and complicated villa at Kannia, with the very thorough and detailed work on just one shrine compiled at Phylakopi (Renfrew (1985)).

It is also possible that the fullest potential of a site may not have been reached in the excavation and that all the evidence has not been uncovered. This has been the case at Juktas for instance, where renewed

excavations have recently uncovered a great many new finds and new evidence of a much larger structure than was previously thought.

Good reporting also means that existing material can be looked at in new ways even after a gap of time has elapsed since the original excavations. For instance, O.Pelon has studied both the earlier reports for the palace of Mallia together with the site itself as it now is, and come up with some different and highly credible interpretations of various parts of the site (1980a), and in this he was greatly assisted by photographs taken during the excavation. These are a valuable source of information as they may include evidence not specifically or clearly mentioned in reports, or at least present the evidence in a factual manner so that it is possible to see exactly what the original excavators based their own conclusions on and then possibly to reach alternative ones, as Pelon did in the case of room XVIII 1. From a photograph he was able to determine the exact relative positions of the altar and the objects relating to it, and what would have been the final appearance of the room. There are other instances at Mallia where Pelon has clarified the position, suggested credible alternatives or pointed out inconsistencies between earlier reports.

Many of the palace and domestic sites have been well excavated and reported. The situation is slightly different for cave and peak sanctuary sites. Due to their inaccessibility and small size they tend not to have been so thoroughly investigated. Early excavations of some of the more notable sites were not always very thorough, often being no more than surface surveys or a series of trial pits, so that much may have been missed. Even those more systematically investigated were not always published in as much detail as is generally thought necessary now. The report of the excavation of the Petsophas peak sanctuary, actually one of the better excavated and published, gives only vague provenances and describes an enormous wealth of figurines under three very broad headings: male, female and seated, without any, or very few, individual details or precise numbers.

The state of knowledge of the frequency and distribution of caves and peak sanctuaries has been much improved in recent times. Faure's work on caves (1964,1967,1969,1972,1978) and Platon's on peak sanctuaries (1951) and later exploration by others have brought about an overall picture of the number and range of such sites, though not a few are still not completely excavated.

In basing this study predominantly on the

information afforded by site reports it is necessary to note these areas for caution. Alongside the problem that some of the older reports do not include satisfactory details and analyses, there is that also of past interpretations. The difficulties of identification of shrines has already been mentioned. This has sometimes led to the acceptance of anything at all out of the ordinary or otherwise inexplicable as cultic. These interpretations of rooms or sites by excavators in the past cannot now necessarily be accepted or verified. Identification of areas as cultic is now perhaps generally more cautious. For instance in the Pernier and Banti volumes on Phaistos, Banti in the second volume, on the same evidence available, discounts some of the previously suggested religious areas in the palace. Rutkowski in his book goes through the sites credited with cult associations and often finds that there is insufficient evidence to agree with such an interpretation (1985).

Labelling and descriptive terms applied to objects are another area for caution. Items are often listed in reports in a manner either inexact or which implies a certain character and function. Many titles have now become accepted usage and were readily applied to objects without explanation being thought necessary, such as offering table, altar and idol. Such terms have been used loosely to cover a wide variety of forms

without proper distinction, and one of the purposes of Chapter Four is to define these terms as they will be used in this study.

CHAPTER THREE

Site type and choice

3. SITE TYPE AND CHOICE

The overall objective of the present work is, as stated in Chapter One, to study the material remains of Minoan cult practice and to make valid, explicit comparisons in order to isolate and focus on the central question of the unity or diversity of those practices, and the divinity or divinities worshipped. It is in no way intended to be a complete catalogue of all the evidence for cult activities in Crete and the sites used for the comparisons are only a sample of those which contained evidence of a religious nature. So many sites have been assigned a cult purpose or associations that it is not possible to include them all with the amount of detail necessary; furthermore individual theses have been devoted to particular types of site so that full site listings for particular site types are available elsewhere (for instance Faure 1964; Tyree 1974; Gesell 1985).

The first division of the material is by site type and the sites used are divided into four main types: settlements; peaks; rural; caves. All attempted strict definitions of each site type run into problems, since many sites had special traits and individual, unique sets of characteristics. The classification of

the material by site type though is a convenient method of making primary divisions in handling such a huge body of rich and varied information. Also, without prejudging or making assumptions about the nature of each type, it is necessary that some differentiation between the site situations is made because of the apparent and often very marked physical conditions prevailing at each, reflecting presumably a deliberate choice at work in the siting of shrines in each of these particular environmental situations.

The reasons for including certain sites and not others are various. Those will be omitted which are either of too uncertain status or too incompletely excavated and reported, when others of the same type have received more thorough treatment. Other sites omitted are ones with no reported objects, or assemblages without a clear context, as well as ones which could contribute very little, and that nothing original, to the main body of material.

Some numerical imbalance between site types is however hard to avoid, since even when all the shrines in settlement sites of various kinds are not included, shrines of this type still heavily outnumber all others. This, however, does reflect the actual situation with regard to the evidence available; that is the published reports and my studies at the sites on

which this work is based. The reason is of course that many more settlement sites have been excavated and reported in more detail than other types. Also sites which contain shrines in this category, especially the palaces, are often physically larger so that more than one sanctuary may occur at each. Shrines in settlements have required sub-dividing, since included within this broad heading are several different, very particular types of cult place. It would be pointless to try to achieve a balance of numbers by omitting more settlement sites than necessary, as then their representation would be falsely and inadequately small and a large amount of important evidence would be lost and this factor is taken into account when comparisons are made.

Settlement sites

The first, and largest, category of shrines comprises those located within the context of a settlement or a habitation. Here the cult activity took place in a constructed setting as part of a larger situation in which all everyday, non-religious activities were carried out. This of course involves an enormous range of conditions both of a physical nature, to do with size and type of structure, and, related in many ways, social factors, as expressed materially in ordinary farmhouses, country villas and small towns,

palaces and their dependent settlements. Within this wide spectrum there exist many particular types of shrine each with its own set of defining characteristics such as a bench shrine or lustral basin, but they share the fundamental characteristic that they belong to a larger structure which accommodated every aspect of living, not just religious. The degree of isolation from the secular side of life also varied.

Gesell in her thorough study of Minoan settlement shrines lists 138 shrines in the catalogue, not all of which are included here. Some of the shrines listed are tombs and are therefore automatically excluded by the terms of this study. Then there are sites where the evidence is unclear and problematic and so these have been omitted. The villa at Nirou Chani is one such in that although there are clear signs of cult associations of some kind, it is hard to define the exact cult area of the building or whether this evidence did actually derive from a shrine. Various theories have been put forward to explain this seemingly odd situation, one of which is that the whole villa was a base or store for religious equipment which was to be sent abroad for purposes of propaganda. As for some other sites, such as Amnisos, Sklavokambos, Tylissos and Vathypetro, types of shrine found in these places and the material they contained were thought to

be sufficiently represented by shrines elsewhere, though additional information from them will be included where relevant. The same is true for shrines at Kommos and Pseira. In certain cases individual shrines within larger sites covered in the sample are left out, usually due to inadequacies in the evidence. For instance, since the so-called Sanctuaire à Cornes at Mallia with the unusual arrangement of horns of consecration has no definite evidence of cult activity in the form of objects, the information it can provide is very limited. In other cases also the proof of cult use is not very strong or is arguable. Non-publication of excavations is a frequent problem throughout this study and several sites have not yet received proper treatment.

There are different kinds of cult rooms, that is rooms concerned with religious activity, within settlement sites, recognisable by certain features and which can be defined as types - bench sanctuaries, lustral basins and pillar crypts are the main ones. It is possible for two such types to occur within the same complex, for instance Zakros (a)[1] has a bench sanctuary and lustral basin within the same overall sanctuary. It is necessary to define these terms here, but in the main comparison all rooms are treated as belonging to the same complex and references made to the separate rooms where necessary. These are types of shrine room

1. For details of sites referred to by letter only, e.g. Zakros (a), please refer to pp.78-80.

where acts of worship were carried out, often the same complex contained annexe rooms of a subsidiary nature which were used for preparation or storage, and therefore offer a different level of evidence.

Not all shrine rooms in settlements which are included in this sample had special or distinctive integral features marking them unmistakeably as religious areas and many were probably secular rooms put to cult use, rather than specially built as such. It is sometimes only from the association and assemblage of objects that such rooms can be identified as shrines. For instance at Chamaizi, the room (4) in which the religious material was found has no features to mark it out as in any way different from the other rooms of the building, and the normal walls of the house are the only demarcation of the cult area, yet this is accepted as a shrine from the objects found there. At the other end of the Minoan period some of the shrines at Karphi (e.g. rooms 55 and 57) also do not have particular features to distinguish them from ordinary domestic rooms. Shrine rooms such as these, which contained cult material but which do not have any remarkable architectural features to designate them as a sub-type of settlement shrine, are grouped as miscellaneous. Included with these are others which may have an unusual feature but not one which gives the

room a special character or which conforms to a pattern or type.

Brief mention must be made then of the various sub-types of cult room which may be found in settlement sites.

Bench sanctuary

One of the main recognisable types of sanctuary within the overall settlement category is the so-called bench sanctuary (Gesell (1985) 19-22). As the name suggest these are shrine rooms in which a bench, or benches, are present. In some cases there is evidence in the form of offerings, cult statues or sometimes position to suggest that such benches were used as altars; in others, although the bench is found in the shrine room proper, the evidence is either insufficient or non-existent to show that they were anything other than practical furnishing of the room. The bench itself of course is a common piece of domestic furniture also, and is here transferred into the religious sphere, rather then being of solely cultic character.

The exact layout of this type of shrine varies and is not standard until postpalatial times, and even then variations can occur. These later examples, such as the Shrine of the Double Axes, Knossos, - in some ways the best-known and most canonical form, in which cult figurines and equipment were found in position on the bench-altar which ran across the back wall of the shrine, - have a more fixed arrangement and it is in this period perhaps that the bench sanctuary is most

prevalent. However, shrine rooms with benches have antecedents as far back as the prepalatial period in the shrine at Myrtos. (Warren, (1972) 265-66), and proto- and neopalatial examples are also known for instance Phaistos (a), although Banti (1941-4) 46-50) thinks that none existed before the neopalatial period.

Not only the precise layout of the shrine may vary, but the construction and nature of the bench itself is not always the same. For instance it may be constructed of slabs and plaster with a filling of rocks and clay, as at Phaistos (a), or just a convenient projecting rock as at Karphi (f). As the bench forms a category of feature in itself, both as altar and as practical furniture, individual examples will be discussed in more detail in the appropriate places. The following is a list of the bench sanctuaries included in the sample used here:

<u>Prepalatial</u>

Myrtos

<u>Protopalatial</u>

Mallia (a)

Phaistos (a)

Phaistos (b)

Neopalatial I

Mallia (g) (h)

Phaistos (d)

Zakros (a)

Neopalatial II

Knossos (k) (l)

Postpalatial

Gournia

Haghia Triada (b)

Kannia

Karphi (a) (b) (c) (e) (f)

Katsamba

Knossos (m) (n) (p)

Gesell (1985) has 35 bench sanctuaries included in charts IV, V and VI, and also designates Myrtos as a bench sanctuary, making 36. She includes amongst these Gazi, for which no actual bench structures survive, though it has been suggested that these were originally of wood, now perished. Traces of wood did survive in many parts of the room but these may have been from a floor and not from benches (Marinatos (1937) 279-80), and so Gazi is not included here with bench sanctuaries.

Most bench sanctuaries have one or more connected rooms, usually with a subsidiary function, such as

vestibules, store-rooms and preparation areas. Occasionally also the same shrine complex contains separate type of cult room, most notably lustral basins, which will be listed separately, as for instance at Zakros (a). It seems likely that particular rituals took place in the different rooms, and that more than one level 1 (as set out in Chapter Two) shrine room could be situated within the same sanctuary complex, treated here as a single site unit. The situation at Kannia is rather complicated, as although it is clear that ritual activity took place in several rooms it is not so certain which one or ones were actual shrine rooms, though the possibility seems strong that more than one, if not all, of those furnished with benches, I, V, and XV, which all contained goddess figurines had the status of shrines. All the possible shrine rooms here are also included in the same shrine unit as they were so closely connected and shared the use of the same facilities.

Lustral basin

This is a particular type of room found only within settlements. There has been much discussion about these rooms and their precise function. (Mackenzie (1907-08); Evans (1920) 405ff; Nilsson (1950) 92-94; Platon (1967); Graham (1969) 99-105; Alexiou (1972); Graham (1977); Gesell (1985) 22-26; Rutkowski (1986) 131-38.) The arguments mainly centre on whether the lustral basins were primarily bathrooms or cult rooms or perhaps both. Their remarkable form and structure, their location within the buildings (for instance the lustral basin associated with the Throne Room at Knossos), and objects sometimes found in them have provided strong indicators that some at least were used for cult purposes. Graham, Platon and Gesell (*op.cit.*) on the whole take the view that they were also bathrooms, or derived from them, and that the cleansing taking place in them was in some sense a ritual performance. Alexiou on the other hand believes that they are not suited as bathrooms (*op.cit.* esp. 419ff.) and all were connected with cult only. The distinction between the two interpretations does in fact sometimes seem to overlap and perhaps those located within domestic quarters were used as both, while for others, such as the Throne Room at Knossos

and the very extraordinary one found in Xeste 3 at Akrotiri (Marinatos, N. (1984a) 73-84 (1984b) 175, (1985 222-29), whatever the precise nature of the ceremonies which took place within them, their over-riding character must have been religious. The ones included here were all part of an obvious shrine complex, such as Zakros (a), or had definite indications of cult use.

The essential element identifying the lustral basin as an architectural unit is the fact that they were in effect sunken in relation to the room in the vicinity. They therefore were entered by means of a stair running down on one or more sides with a landing if necessary, often terminating with a column or pillar. Some were open above with a parapet, others had solid walls around. Excavated below ground level, in some cases from the bedrock, they often showed signs that great care was taken over the appearance of the walls and floor, which were either stuccoed or lined with gypsum. Apart from such possible treatments they seem mostly to have been featureless internally, with the exception of course of the stairs.

A lustral basin in the palace at Zakros, (b), unlike any other found so far in Crete, but in common with the only one so far found outside Crete, that on Thera mentioned above, has pictorial, rather than just

plain painted, fresco decoration. Though badly damaged by fire the painting seems to represent horns of consecration crowning platforms, possibly altars, giving a good indication of cult association for this basin in particular and also for the type as a whole (Platon 1966) 165ff. and (1971) 182). A very interesting example of a more elaborate interior to a basin has been found at Mallia, room I 4 of building A in Quartier Mu (Daux (1967) 882; Poursat (1971) 796-97; (1972) 180; (1975) 90; (1978) 23; Tire (1978) 63-66; Van Effenterre (1980) 177). Unfortunately it has not yet been fully published and so is not included in the sample, but is worth mentioning in this context. It is the earliest known so far and is also slightly larger than later ones. In the northeast corner the natural rock, though stuccoed, has been left rough and not carved to conform to the smooth lines of the rest of the room. More remarkable perhaps are the traces of some sort of installations along two walls, consisting of wooden beams and vertical mountings, as well as in the corner a stuccoed table with a cupule or hollow. Such arrangements are so far unparalleled and again are evidence of the cult associations of this type of room at its very beginning.

Despite all the discussion the precise function of these rooms, what exactly went on inside them and why

they were built in this special way is still debated. One hypothesis for their origin is that they are somehow derived from, or constitute an attempt to imitate the conditions of, cave sanctuaries (Platon (1941) 130), with their subterranean character, and are thus connected with chthonic worship. The presence of the unhewn rock in the Mallia example mentioned above could be taken as support for this view. However it is difficult to reconcile it also with the frequently accepted alternative function of the basins as bath-rooms (Graham (1964) 104).

The name lustral basin is itself loaded with implications concerning associations and use, but it is still the term which is generally preferred. As it implies, the function often ascribed to these rooms was one connected with ritual ablutions, anointment and purification (Evans (1935) 937; Alexiou (1972) 415-16; Davaras (1976) 188-89) activities which could be accepted as merging with the physical cleansing taking place if they were also bathrooms. However the lack of drains in the vicinity or of actual bath tubs (Alexiou *op.cit.* 419-22) makes it unlikely that large quantities of liquids were ever involved, but that they were instead symbolic and perhaps precious as indicated for instance by the alabastra found near the lustral basin of the Throne Room Knossos, and the rhytons found in the lustral basin, room 63d at Phaistos (c). The

remarkable basin found in Xeste 3 at Akrotiti on Thera is worth mentioning here though it is outside Crete. The lustral basin was decorated with an extraordinary series of frescoes of an explicit religious nature (Marinatos,N. (1984a) 73-84, (1985) 222-29). These included for instance a masonry altar, topped by horns of consecration, with blood trickling down. Also depicted are three girls, one of whom has wounded her foot. Above the level of the lustral basin was depicted a seated goddess in a scene of Crocus gathering. The whole has been related to the form of the room and the kind of ceremonies which would have taken place there.

The distinctive form of these rooms with their special architectural character, together with the objects and frescoes found in several of them are sufficient indications to be able to assign a cult function to this sub-type of settlement cult room as a whole, and those in particular which are included here. Others containing less evidence may also have served as bathrooms, and here the functions may have overlapped, but lack of evidence means they will not be used in the sample.

<u>Neopalatial I</u>

Knossos (c)

Mallia (i)

Palaikastro (a)

Phaistos (c)

Zakros (a) (b)

<u>Neopalatial II</u>

Knossos (k)

<u>Postpalatial</u>

Palaikastro

Gesell (1985 Chart VIII) lists 27 lustral basins and Rutkowski (1986 - table III and catalogue VIII) has 28 including the Thera example. Some of these, for instance at Nirou Chani and Tylissos, occur at sites not included anyway. Of the others most, if not all, contained no firmly associated objects indicating cult function, or other special factors, such as location, to distinguish them.

Pillar Crypt

Another sub-type of settlement site shrine is the pillar crypt. Platon (1954) has done the most detailed work on this type of sanctuary, assessing all the evidence, though his terms of reference were widened to include some rooms without pillars. Evans first discussed the possible sanctity of pillars (1901) and (1914) 64-93) and Nilsson too has studied this particular type of sanctuary (1950) 236-49). However the religious implications and associations of pillar crypts still arouse debate (Gesell (1985) 26-29; Rutkowski (1986) 21-45.)

Although called crypts these rooms, of varying sizes, are not always subterranean, some instead are at ground level, such as Mallia (e), but all were probably dark rooms receiving little natural light. They contain one or more pillars but additional features are few; vats and channels are perhaps the most usual of these, as for instance in the pillar crypts of the Central Palace Sanctuary, Knossos (j).

Some scholars argue that for many of these so-called pillar crypts there is no evidence that they were cultic at all (Pernier and Banti (1951) 583; Rutkowski (1986) 22, 44-45) and consider the pillar a

purely structural feature. Where there is evidence of a cult use, consisting of location within a shrine area, incised signs and objects, the argument has mostly centered on the precise role of the pillar. The main theories put forward on this are that it was itself regarded as a cult object (Evans (1901) 111), though this is now thought unlikely; or, alternatively, that it was indeed a structural element but one which gained a cult significance from being part of a sanctuary and supporting a columnar shrine on the floor above, all the direct evidence for which has disappeared (Evans (1921) 441-42), but whose existence can be inferred from iconographic sources. The crypts themselves are often too small to require such strengthening, so the reconstruction of an upper columnar shrine room is plausible. Other rooms may also be connected with the pillar crypts, such as anterooms and others with subsidiary function.

Similar pillar rooms were found also in tombs. Gesell (1985) has 24 pillar crypts in her Chart VII, of which 4 are tombs. Rutkowski (1986) lists 48 in his table 1; again 4 are tombs, and others are from outside Crete. Others again are from sites not included in this sample for reasons discussed elsewhere. In this present section then are included rooms with pillars which have been recognized clearly as cult rooms from

their context, contents and special features, the pillars being one of those features. It is however not in the scope of this work to discuss all the particular problems of this type of sanctuary, nor to attempt answers to all the questions.

Neopalatial I

Knossos (f)

Mallia (e)

Neopalatial II

Knossos (j)

Shrines in open areas

Within settlements open areas, as well as built rooms, could be used as places for ritual activity. In the palaces for instance the courts sometimes contain features which suggest that ritual activities were carried out there. The clearest example comes from the Central Court at Mallia, where a special structure, the bothros, was found, together with a possible baetyl and paved areas, all of which were precisely placed and aligned with the shrines inside the palace building. At Knossos, in the West Court, there are structures possibly belonging to altars (Evans (1928) 612-13); and slabs, also possibly remains of an altar enclosure were found in the Central Court at Zakros (Platon (1971) 102). A slightly different arrangement, again interpreted as an altar by some and therefore a focus for ritual ceremonies, comes from the Central Court at Phaistos. In the northwest corner there is a stepped stone structure which, it has variously been suggested, may be an altar, or a mounting block used in connection with the bull sports (Pernier and Banti (1951) 585; Graham (1957) 261ff.; and (1969) 78-79).

At Mallia there are sufficient indications, along

with a few traces of objects, for the Central Court to be included in the list of sites with religious associations, but the lack of any such evidence or objects at the other sites mentioned means that they will not be treated in detail.

Apart from the palaces there are some indications from the towns and villas of cult activities taking place in their open areas. For instance horns of consecration came from an open area in the town at Gournia (Hawes (1908) 25), though with no definite context, and Graham has recognised a possible altar for bull sacrifice in a slab at the same site (Graham (1969) 142). In the courtyard of the villa at Nirou Khani a stepped construction with associated horns of consecration, incomplete, would seem to suggest that some form of religious ceremony took place here (Xanthoudides (1919) 63-64 and (1922) 14-15).

The small size of some of the Minoan shrines and their proximity to these open spaces, may mean that most of the participating worshippers in important public ceremonies would gather in such areas and watch, or be otherwise involved in the rituals taking place inside, or just outside the actual sanctuaries. Such sanctuaries may in effect have been designed to provide a suitable backdrop for worship, as for instance the tripartitite shrine façade restored by Evans in the

court at Knossos, and a similar one in the courtyard of the villa at Vathypetro. (Evans (1900-01) 28-30 and (1902-03) 37-38 and (1911) 289-95 and (1928) 803-810; Shaw (1978) 430-31 and (1981) 560; Vathypetro, Marinatos (1952) 607-610; Shaw (1978) 442-44 and (1981) 561-62). There is also iconographic evidence to support the theory in the so-called Grandstand Fresco from Knossos, showing a large crowd watching some spectacle in the vicinity of a tripartite shrine (Evans (1930) 46ff.).

A particular instance of an open-air sanctuary of a slightly different nature is that called the Piazzale dei Sacelli at Haghia Triadha. This is a large open-air deposit covering an area of the site, with some associated features. It may not have overlapped with the independent shrine, building H, at the same site (La Rosa (1979-80) 107) but the two seem separate. It continued in use from approximately LMIIIC to Sub-Minoan and Protogeometric times, when the site does not otherwise appear to have been inhabited. However it is still included in the category of settlement sites since it was founded at a settlement site and this must have had a strong influence on the reasons for its siting and an important bearing on its character (Gesell (1985) also includes this shrine in her work on town and palace sanctuaries).

The so-called Temple at Karphi (a) might also be included in this sub-category of settlement shrines as it seems to have been unroofed; no material which might have constituted a roof was found. However, although it may therefore have been open-air, it was still essentially built as a room, rather than an open area between buildings.

Rutkowski lists 9 cult places in squares and courtyards ((1986) Catalogue IX), though he includes each individual feature separately. As mentioned above, the lack of objects or other evidence in association with features in many courts means that they cannot be included here.

<u>Neopalatial I</u>

Mallia (c)

<u>Postpalatial</u>

Haghia Triadha (c)

Smaller categories and miscellaneous

There are other types of cult room, found within settlements, but which occur only in small numbers or singly. They have special characteristics which, by their nature, give the rooms their definition (of course not necessarily their identification as cult rooms). Such is the Throne Room at Knossos (k), so called because of the stone throne found there and which also contained evidence for cult use associated with it, including a lustral basin.

Also at Knossos, the Spring Chamber (p) of the Caravanserai can be identified as a sanctuary from its contents, although its history is quite complicated.

The tripartite shrine (Gesell (1985) 29-30) is a type of sanctuary which does not survive in the physical record as actual remains on any scale, but can be found represented in the iconographic sources, such as the miniature fressco from Knossos, the gold plaques from Mycenae and the Peak Sanctuary rhyton from Zakros (Shaw (1978) and (1981) discusses the evidence for this type of sanctuary). The best evidence comes from the Central Court at Knossos (j) where Evans interpreted arrangements in the buildings at the very edge of the court and other remains as being the traces left by a

sanctuary of this kind (Evans (1911) and (1928) 803-810). Another possible example comes from the villa at Vathypetro, mentioned above, but this has no associated objects or certain identification. Both of these structures are so small and narrow that in fact they may be considered as sacred façades only and taken as being connected with worship in the open places in front of them as discussed above, and therefore they could also be called façade shrines.

Rutkowski has also a small category of sanctuaries at the entrance to houses ((1986) 15 and catalogue VI), of which, those included here are listed in other categories since the separate existence of this type of shrine does not seem proven.

Religious activities may have taken place in other areas of settlements which may not necessarily have constituted shrines as such, for instance in the theatral areas, and evidence for dancing floors which may have had religious connotations has recently come to light (Warren (1984)). It is also true that throughout the palaces in particular were scattered religious symbols in the form of incised signs, double axe stands and horns of consecration; these do not constitute sanctuaries where worship took place, but perhaps reminders to the occupants that the buildings were under divine protection.

Most of the different types of cult rooms in settlements also have subsidiary rooms attached to them. These must have served various functions in the activities of the shrine, such as storage and preparation. They are included as being integral parts of the sanctuary but are not as immediately concerned with the primary acts of worship taking place in the shrine room itself, and as such they form a second level of evidence as discussed in a previous chapter.

Those so far mentioned are all architectural units connected with worship which have been excavated with their contents, the latter if not in a perfect state of preservation, at least still in close association with the place of original intended use. Other assemblages have come from contexts which are undisturbed, and therefore not modified, but which are clearly not places where the rituals for which they were needed took place. These are the stored assemblages: the Temple Repositiories and the deposit in the house southwest of the Southwest Treasury, both at Knossos (b) and (d), both also Neopalatial (I). Both are stored deposits with no indications of the original place of use, and are therefore level 3.

There are also the wholly modified deposits that is those which through accidental circumstances have

been removed from their original locations and have lost therefore all certain architectural associations.

Modified shrine deposits

Protopalatial

Knossos (a)

Mallia (b)

Neopalatial I

Haghia Triadha (a)

Knossos (g) (h) (i)

Mallia (f) (k) (l)

Palaikastro (b)

(Myrtos)

Postpalatial

Karphi (d)

Kephala Chondrou

Knossos (p)

Palaikastro (d) (e)

There are other shrine rooms and their dependencies which, as mentioned above, have no real architectural characteristics by which they may be defined as a special category. These are therefore brought together as miscellaneous:

Prepalatial

Chamaizi

Neopalatial I

Knossos (e)

Mallia (d) (j)

Palaikastro (c)

Neopalatial II

Knossos (1)

Postpalatial

Gazi

Karphi (g)

Knossos (o)

These then are the main sub-divisions of shrine types within the larger category of settlement shrines. The shrines can vary a great deal in appearance and size as might be expected from the wide range of settlement situations they are found in, the differences in wealth and resources which this entails, as well as the chronological span they cover. It is also worth remembering again that rooms used as shrines often did not vary a great deal in shape or construction from those used for domestic purposes and they might be found in any part of the building. In the farmhouses and individual houses in towns and

settlements the shrines were small, private, domestic places of worship for those in the household, though not every house is known to have had one. In the larger villas and palaces their contents might be on a richer scale but still worship might take place in not particularly spacious or emphatically demarcated areas. Were these, such as the West Court sanctuary at Phaistos (a), intended for the use of everyone living in the palace and its surrounds, and visitors, or for palace members only? Their size does indicate that the rooms themselves were not meant to accommodate huge audiences at the ceremonies taking place inside them, and as already suggested such gatherings may have been located in the open areas often found adjoining the shrines, and in other types of shrines outside settlements.

Some of the palace shrines must have constituted the domestic shrines for that, albeit extended, household and are found integrated into the ordinary living and domestic quarters of the palace. It has been said that the whole ground floor, or ground and upper floors of the west wing of the palaces comprised rooms whose function was in some way connected to religion (Graham (1969) 141-42). While shrines certainly are found in this general area, for instance the Central Palace Sanctuary at Knossos (j), and Zakros (a), there are other rooms in the same areas put to

different uses and shrines are also located in other parts of the palaces. Access to these shrines is not always direct from without, but can be part of a complicated system of passages through the building; neither are the sanctuaries usually separated from the surrounding rooms by exclusive access or walls. On the whole the picture presented is one in which religion is very much integrated into the overall system prevailing and of a society not rigidly divided.

One interesting situation, perhaps relevant to this, exists at Phaistos (a) in the protopalatial period. The small shrine room VIII was originally entered from the palace side only, through room IX. Later, among other slight modifications, a more direct access was opened in the other direction, from the West Court, seeming to make the sanctuary more open. The shrine on the south side of the palace at Mallia (h), Neopalatial in date, also seemed to have direct access from outside the palace, though the picture is not so clear here. This could be an indication of a tendency towards more public, independent sanctuaries with access to all (Banti (1941-43) 45).

The two shrines mentioned above, while apparently being made more publicly accessible, were still an integral part of the surrounding building, approachable through it and undifferentiated in any emphatic way.

True, independent, public shrines have also now been shown to have existed in Minoan times, (Hood (1977)) though not all agree that they fulfil the criteria of temples (Marinatos, N. (1986) 14 and n.25). These public shrines consisted of cult rooms which had a completely exclusive means of access directly from without and were separated distinctly from all other buildings and rooms around by being either free-standing, or if joined, with no common entrances and the rooms were not interconnected.

Such public shrines have been identified in different periods, from the prepalatial at Myrtos, to the Gournia shrine which is LMIII. Hood identifies 10 altogether on Crete, and predicts that more will be discovered. Their form and construction varied, though all were basically bench shrines and in later periods became more standardised, as did this type of sanctuary as a whole. Still fairly small they could not have been capable of holding large communal celebrations with many participants at one time. On the other hand, access to worship in them must have been open to a greater potential number of people and they are apparently not restricted to any one household; to this extent they were of a public character.

This whole question of whether such shrines were

public or private, temple or not, is however perhaps not as clear-cut or as necessary as might be thought, in a society which may not have recognised such arbitrary distinctions. As Nanno Marinatos has said, with regard to a remarkable cult centre in a house at Akrotiri: 'Whether the West House was a private or public building is not relevant for a society where the two spheres overlapped to an extent difficult for us to imagine.' (Marinatos, N. (1983) 19.)

Conclusions

The category of shrines within settlements comprehends a range of sub-types with their particular situations and special traits. These have been found at sites spanning the whole Minoan epoch. It should therefore be considered whether, within this period, there were developments and variations in the occurrence of these sub-types. Gesell has this chronological dimension as a main consideration in her study of the development of shrines in towns, palaces and houses (1985).

The earliest settlement shrines found in Minoan Crete, Myrtos and Chamaizi in the sample used here, while on a simpler scale nevertheless showed some basic features which were the recognisable antecedents of later shrines. The bench shrine in particular had a long history of use from Myrtos through to the Shrine of the Double Axes, Knossos. However it was not until the later ones that there is any conformity to a pattern of shape, structure, lay-out and position within the house or settlement.

Shrines within settlements, being an integral part of their architectural environment are very much linked to prevailing developments and trends. The evolution of the palaces must obviously have had a profound

affect on the form sanctuaries took, and many of the shrine types mentioned above were important elements implicit in the rise of the society based on the palaces, if they were not restricted to them. Thus lustral basins and pillar crypts, as well as the throne room, are types found predominantly in the Neopalatial periods, when Minoan architecture had reached a very advanced and specialised form, though they occur also to a lesser extent in the protopalatial period.

Geographically the different types of shrines within settlemtns seem not to display any real regional variation, though it has been suggested that pillar crypts occur only in central and southern parts of the island (Gesell (1985) 26) and indeed none have been recognised at Zakros or Gournia.

SETTLEMENT SITE SHRINES - BY PERIOD

1. Prepalatial

Chamaizi

Myrtos

2. Protopalatial

Knossos (a) The Loomweight Basement deposit

Mallia (a) Independent sanctuary

Mallia (b) Q.Mu, building B V5

Phaistos (a) V-IX

Phaistos (b) LIII, LV

3. Neopalatial (I)

Haghia Triada (a) 'Sacello sud-est'

Knossos (b) Tem ple Repositories

Knossos (c) North-west lustral basin

Knossos (d) House SW of NW Treasury

Knossos (e) House of the Sacrificed Oxen

Knossos (f) House B Gypsades Hill

Knossos (g) Gypsades Hill shrine

Knossos (h) Building N of the Royal Road

Knossos (i) Stratigraphical Museum

Mallia (c) Central Court

Mallia (d) Q.VI 1-9

Mallia (e) Q.VIII 3,4

Mallia (f) Q.XIV/XV

Mallia (g) xv1

Mallia (h) xviii 1-4

Mallia (i) Maison E room IX

Mallia (j) Maison E room XXXVIII

Mallia (k) Maison E, border, room II 2

Mallia (l) Maison Lambda, region XVII

Palaikastro (a) Block B room 3

Palaikastro (b) Block N

Palaikastro (c) House B room 42

Phaistos (c) 63d

Phaistos (d) 8-11 ^

Pyrgos (Myrtos)

Zakros (a) Central Shrine Area

Zakros (b) LVIII

4. Neopalatial (II)

Knossos (j) Central Palace Sanctuary

Knossos (k) Throne Room Complex

Knossos (l) The High-Priest's House

5. Post palatial

Gazi

Gournia

Haghia Triada (b) Building H

Haghia Triada (c) Piazzale dei Sacelli

Kannia

Karphi (a) 'Temple', room 1

Karphi (b) 55-57

Karphi (c) 58-61, 80

Karphi (d) Temple Road - east

Karphi (e) 16-17

Karphi (f) 26-27

Karphi (g) 85 and 87

Katsambas

Kephala Chondrou

Knossos (m) The Shrine of the Double Axes

Knossos (n) Little Palace - Fetish Shrine

Knossos (o) Shrine near Villa Ariadne

Knossos (p) Caravanserai - Spring Chamber

Palaikastro (d) Block D room 44

Palaikastro (e) Block G room 3

Rural sanctuaries

This is a small and in some ways rather disparate group, but one made up of those sites situated in rural areas and not connected directly with any settlement or concerned with any activity other than religious. There is to some extent a possible overlap with peak sanctuaries, for instance the site of Piskokephalo, with the important difference that what are defined here as rural sanctuaries are not located on peak summits or necessarily in positions of particular prominence. The above are of course only locational factors and in some ways the group is rather heterogeneous.

Rutkowski has a category he calls sacred enclosures (1986) Ch.VI, 99-118, catalogues III and IV)

in which he includes some of the sites being considered here, though not all, plus some others. His category is also rather loosely defined as sites away from all settlements, but the existence of a definite enclosure is an important consideration for him. For a great deal of the information about this type of sanctuary he relies on various iconographic sources, and these, with his theories in general, are not always wholly successfully related to the sites in the catalogue. (For instance, he uses Gazi to illustrate a particular point (1986, 103) yet it is not included in his catalogue of sites. Again, Kato Syme has as yet no identifiable enclosure.) He concludes that the 'enclosures' were centered on sacred trees, stones or pillars, and some form of ritual connected to the vegetational cycle was practised. Shrines of the sort he describes undoubtedly existed, as is shown clearly in the iconographic sources, though whether these are represented in the archaeological record by the sites he lists is less certain.

The emphasis here is slightly different, since the category is based solely on the archaeological remains of shrines found in isolation in rural areas, and details of form and associations between objects and structures will follow from this, rather than these themselves being fixed determining factors for

identification, as Rutkowski has them.

Physically in fact the sites grouped together here display quite marked differences. Most involved some kind of building, and in two of the sites much of cult activity, and probably all of it, seems to have been carried out within the confines of that building; Archanes and Rousses. At Kato Syme the situation is less straightforward since a large, multi-roomed building was in use for a particular period in the life of this complex site, which seems to have played a subsidiary role in worship at the site rather than as the scene of actual worship, and there is also a neopalatial monumental platform in the North part of the site with a surrounding wall.

At Piskokephalo the remains of a building were found, but have since disappeared (Pendlebury, J.D.S. and Money-Coutts, M.B. (1932-33) 96; Platon (1951) 127), and the majority of objects connected with the cult were discovered on the open slopes of the hill where the sanctuary was situated. This site has been included previously amongst the category of peak sanctuaries (Platon (1951) 124ff. and (1952) 631ff.), but since it was found on the sides of the hill, not on its summit, and a low one at that (alt.60m.), it does not seem to belong to that type of sanctuary. Kato Syme, though at a much higher altitude (1200m.) is also

not on an exposed peak, but rather on a sort of small plateau surrounded by cliffs.

Kremasma is a very small and rough santuary, the finds coming from cracks in a rocky area near the shore close to Sisi. No traces of any building were found, though the possibility cannot be excluded that a rudimentary structure may have existed, since disappeared. Although not rich in finds or structures this site is interesting for its close proximity to the sea, as no other shrine in a comparable location has been recognised. There are shrines in houses or settlements located on the margins of the sea, as at Pseira and Kommos, but with no such apparent direct connection with the sea, or in a deliberately chosen maritime environment, exclusive of other uses. However, despite this proximity nothing was found there showing any particular marine associations or to tie the site with the sea. Shells, natural and artificial, models of fish, boats and marine vegetation has been found at many sites, though amongst various other types of object, indicating that the sea did play an important role in the ritual expression of the Minoans (Hagg and Marinatos (1981) 214-15), as it did of course in the life and economy of the island. It is perhaps somewhat surprising then that there are apparently no shrines, except possibly Kremasma, which itself has no objects connected with the sea, situated

to express and embody this close relationship more directly. The marine aspect of religion seems not to have had a separate location but is represented in shrines of all the other categories, unless, as is possible, the traces of such shrines have been lost or remain unrecognised.

Archanes-Anemospilia is another unique site. It can perhaps be classified as a temple as there is evidence that it housed an image of a divinity. This site, together with all the others listed here, would seem to have been for public worship, whether described as temples or not. Since they were not attached to any household or family, access would seem to have been open to all, though the differences in their relative sizes may point to variations in their popularity.

Of the sites Piskokephalo and Archanes represent the earliest examples, being dated to the protopalatial period. There are some problems over the dating of Archanes, which full publication of the material should resolve. The excavator has dated it firmly to the protopalatial period, though some of the published pottery seems to have closer parallels with a later period, namely MMIII (Betancourt (1985) 104).

Rousses and the first documented phase of use at Kato Syme are contemporary, neopalatial, as is the

later phase of the latter with Kremasma, being postpalatial. The sites then cover as wide a chronological range as they display differences in appearance and construction. The factor they do share is in location and character, to the extent that they are situated in rural areas and are public. It is possible that more sites of this type remain to be discovered, and if so then a more detailed classification may be achieved.

Rural sanctuaries

	Pre.	Pro.	N.I	N.II	Post.
Archanes-Anemospilia		*			
Kato Syme			*	*	*
Kremasma					*
Piskokephalo		*			
Rousses			*		

5 Sites

7 site units

Peak sanctuaries

The number of sites which may be included in the category of peak sanctuaries is quite large. Peatfield (1983) lists 52 sites which have at one time been identified as peak sanctuaries, of which he accepts 24 as certain or probable; Rutkowski ((1986) catalogue II) has 37 sites of this type. The ones included here, comparatively few in number, have been selected on the grounds, previously mentioned, of having the clearest indications of cult use and of being most fully excavated and reported. This can still mean only fairly summary publication and it is unfortunately not always certain that a complete picture of the contents and related features is available. Usually though it is possible to ascertain at least what categories of objects were found at a site, if not precise numbers and details, and this is sufficient, if not desirable, for the present purpose since primarily it is the presence or absence of these categories which is being compared, and knowledge of number, while important, is not so essential.

Peak sanctuaries have been the subject of particular attention and investigation (Platon (1951); Faure (1963), (1967), (1969); Dietrich (1969);

Peatfield (1983)) so that, especially recently, a clearer picture of their number, distribution and characteristics has been obtained. As their name implies these sanctuaries were located on the tops of hills and mountains, though their altitude varies considerably (Peatfield *op.cit.* 274-5) and they are not necessarily sited on the highest point in an area; as Rutkowski has pointed out in fact in Minoan times the highest peaks do not seem to have been sacred (*op.cit.* 93).

The precise reasons for siting the sanctuary on a certain peak and not others may have taken into account a number of factors. Though isolated and sometimes at high altitudes the shrines are all relatively accessible from nearby Minoan settlements (Peatfield *op.cit.* 275; Rutkowski *op.cit.* 92-93) and they seem also to be sited for prominence and visibility from surrounding villages and farms. Rutkowski has also studied the positioning of peak sanctuaries in relation to the local environmental conditions and related farming practices. He has ascertained from this that they were usually located in zones with evergreen vegetation (*op.cit.* 73-74) which also include natural pastures, so that farming was possible in the locality.

The size of the area the peak sanctuaries occupied on their mountain tops varied, probably according to

the local topography, and traces of walls to demarcate the temenos area have been found at several sites. The best surviving example of a temenos wall is from Juktas, but its dating is controversial. The worship within the sacred precinct seems to have been open-air and spread throughout the whole area. Natural cracks and crevices were utilised in the ritual activity, again shown most clearly at Juktas, where a fairly large chasm was found full of offerings, and must originally have been a factor in choosing the site.

The remains of buildings have been found at some of the sanctuaries, which seem to date mostly to the Neopalatial period, that is after the earliest use of this type of site. The precise shape, size and number of rooms of these structures varies and due to their generally poor state of preservation it is not possible to tell whether there were any consistent features in actual appearance and lay-out. The Peak Sanctuary rhyton from Zakros provides the clearest picture of what one of these sanctuary buildings would have looked like (Shaw (1981); Platon (1971) 161ff.), though the shrine depicted seems more elaborate than many of the actual remains found would suggest. It may be a representation of one of the more important and impressive shrines in the category, Juktas for example, or possibly an ideal of the type as a whole.

The buildings associated with the sanctuary on Mount Juktas are the most complex so far found, including a wing of rooms as well as terraces. On Petsophas also was built a structure with more than one room, with plastered walls and a bench in one. Most of the structures on other peaks are very simple, such as those on Traostalos, Vrysinas and Kophinas, and their state of preservation is such that it is no longer possible to be sure either of their original appearance or role in the ritual activity of the shrine.

At Karphi the summit is so exposed and denuded that it is impossible to be certain whether there were once structures here or not, but no traces at all have been reported. Likewise at Maza there are no signs that any such buildings existed; or at Zou, a site which has suffered a great deal from looting, though Faure reported seeing an elliptical enclosure of rocks ((1967) 119).

At all sites the majority of objects found have come from outside any buildings there and the indications are that most of the religious activity was carried out in the open air, the buildings being for subsidiary purposes. Bonfires must have played an important part in these activities, as shown by the deposits at these sites. The fire itself must have

had a ritual value, since remains of sacrifices as well as vessels and votive objects were found mixed in the burnt layers. Peatfield has suggested that they also would have served as beacons and that they may have been visible from each other (*op.cit.* 277). Thus the fires would have had combined functions.

The cult at peak sanctuaries must have been public and the ceremonies may have involved large numbers of people, since the number of offerings can be quite large. The worship at the shrines may have taken place at specific times of the year with the celebrants coming on pilgrimages at these times.

The proximity of peak sanctuaries to pasture land has already been mentioned and it is possible such shrines arose as an expression of the religious needs of the local farming population. However worship at them was probably not limited to such people and peak sanctuaries must also have been visited by the inhabitants of towns and palaces further away. Rutkowski (*op.cit.* 91-94) finds a particular relation between the emergence of this type of sanctuary and the changes brought about by the development of the socio-political system based on the palaces at the same time, though there are indications of pre-palatial use at Juktas and Petsophas at least. It is possible that specific peak sanctuaries were in some way related to

the nearest palatial settlement, such as Juktas with Knossos and Traostalos with Zakros. Others more remote and on a smaller scale were perhaps always of more immediately local importance.

Although there is evidence for worship at some peak sanctuaries in prepalatial times, for instance Petsophas, they do seem to have mainly thrived for the period corresponding roughly with that of the existence of the palaces. With the abandonment of the palaces, for whatever reason, the peak sanctuaries also declined and some ceased to be used altogether. It has been suggested that this may have been connected to a series of natural disasters taking place at the same time which weakened the Minoans' faith in the power of worship at the peak sanctuaries (Rutkowski (1967) and *op.cit.* 95; Peatfield *op.cit.* 277-78). However the cult of peak sanctuaries did not disappear altogether, as shown by later objects found, especially at Juktas.

Juktas is pre-eminent in this category of sanctuary for the length of the period of its use and its complexity. These and the abundance of fine objects found there point to a high status for this site. It has recently been undergoing thorough excavation after a first summary exploration by Evans ((1921) 153ff.) which did not uncover the whole picture. Although very good annual reports exist for

these new excavations there has not yet been time to bring all the evidence together for a complete assessment of the material and several objects remain undated for the moment. Petsophas has also recently undergone new excavation with very interesting results. (Davaras (1972a and b) and (1976) and (1981). Many other sites have not been so fully excavated, but those have been chosen which have been most adequately published and contain sufficient finds for a useful comparison to be made.

Peak sanctuaries

	Pre.	Pro.	N.I	N.II	Post.
Juktas	*	*	*	*	*
Karphi		*			
Kophinas		(*)	*		
Maza		*			
Modhi		*			
Petsophas	*	*	*		
Traostalos		*	*		
Vrysinas		*	*		
Zou		*			

9 sites

18 site units

Cave sanctuaries

In this category of sanctuary cult activity took place in naturally occurring underground areas, enclosed by the rock and usually unmodified or little modified by human activity. The caves themselves of course are easily recognisable features of the landscape; it is not always so easy, however, to determine accurately whether they were sacred or in which particular period, if the cave was also used for habitation or burial. There is also a possible sub-type of this sanctuary called a rock shelter (Rutkowski (1986) 47), though as the differences seem to be small the term is not made use of here.

Opinions vary as to exactly how many and which caves were sacred. Faure, who did the earliest study on this type of cult place in any depth (1964), concluded that there were 24 certain cult caves (*op.cit.* 189-90) and many others which may have been. Tyree in her thesis on Cretan sacred caves (1974) stated that of the 33 caves considered at some time sacred only 19 could actually be proved sacred from the archaeological evidence, with 5 others possibly so and 9 definately not (*op.cit.* 164). In his catalogue I (1986) Rutkowski lists also 33 caves, most of which as

he admits in the descriptions are not certainly sacred. Here only eight are included in the sample as being those most thoroughly investigated and fully published.

As mentioned above while the caves themselves are relatively easy to define, the sacred use is not always so readily identifiable especially as some caves, though not all, were used for a variety of purposes over time and it can be very difficult to distinguish exactly what aspect of human life the surviving material represents.

Caves have been used for habitation, permanent or refuge, or simply as shelter for animals and herdsmen, though some are not suited for such purposes, being either too damp, or, as in the case of Kamares, at such an altitude that it is blocked with snow for much of the year. Habitation may have been the earliest use caves were put to, often in the Neolithic (Pendlebury (1939) 15; Nilsson (1950) 56; Faure (1964) 15), and later they were also tombs, for instance Amnisos and Trapeza. The confusion brought about by such multiple use may be compounded by prevailing natural conditions and human interference, as at Amnisos, where the cave appears to have been periodically cleared (Marinatos (1930) 93). There can therefore be uncertainty as to whether particular objects found in caves are to be associated with the use of the cave for cult or for

other purposes, as well as the problem of dating them accurately.

Not every cave used for habitation went on to become a burial ground or a shrine. The reasons why certain ones were regarded as sacred and became cult centres may be varied. It is possible that particular factors, such as the presence of water or strange natural concretions, found in many caves, were essential, or perhaps divine status was due to their general atmosphere and local traditions becoming attached to them. It is no longer possible to be certain.

The earliest cult use of caves may have been MMII (Tyree *op.cit.* 169), though the period when this form of cult activity achieved its greatest popularity was from MMIII onwards, and in the case of Psychro especially continuing up to Roman times. There is some evidence of cult use in caves from earlier periods, but it is usually certain, and is more likely to derive from burials or habitation. However, as Rutkowski ((1986) 66) has pointed out it is possible that Neolithic people living in the most suitable parts of a cave, may have visited the deeper, darker, more inhospitable parts and invested them with religious significance, leaving offerings.

One cave which clearly was used as a cult place only and slightly before the period of greatest use of

this type, is Kamares. The finds here consisted almost exclusively of pottery which dated its use mainly to MMI-II. There were some sherds dating to neolithic and EM times also which may indicate a summer use; and a few sherds also from MMIII and LM pots.

The cult in caves must have been of a public nature, accessible to all who made their way there. It is possible also, as with peak sanctuaries, that ceremonies took place only at certain times of the year. This seems especially likely in the case of some of the higher and more remote caves, such as Kamares, which could not be easily reached in some seasons. The quantity and range of finds from some caves indicate that they were regarded as more important than others and drew accordingly more worshippers from a wider area than those which seem less frequented and may have been of much more local concern, as was suggested also for peak sanctuaries. The wealth of objects discovered in Psychro and Arkalochori was greater than in many others and the cult there must have been very popular, though there is always the problem of disturbance and looting in many caves, which may have affected the evidence quite seriously.

Architectural remains in caves are few, and those that have been found often rather scant and difficult

to interpret. Those found in caves in the sample will be dealt with in detail in the section on temene. Finds within the cave sanctuaries are generally found scattered throughout the area of the chamber or chambers. Occasionally concentrations in particular spots have been noted in association with structures, or more frequently, natural concretions. The caves themselves do vary in size and the number of rooms or chambers they contain, as well as the complexity of their lay-out and concretions.

The number of cave sanctuaries included here is quite small and it might be thought that there are some surprising omissions. The Idaean Cave was a very important and renowned cult cave, but the weight of evidence and the period of its greatest popularity fall well outside the chronolgical limits of this present study in Geometric and Roman times. Minoan cult use is thus harder to isolate and the actual amount of evidence is at present quite small, though the cave as a whole is undergoing reassessment with new excavations.

The difficulties involved in separating periods of use and assigning objects and functions to the main periods is well illustrated by the cave of Trapeza on the Lasithi Plateau. Some evidence of cult use is included, but there is not a great deal, and is

difficult to separate from the material resulting from burials due to a lack of stratification so that it could not be included here. The cave of Eileithyia at Amnisos is another where evidence for more than one possible use over long periods of time has produced some confusion, especially as the interior was cleared and levelled at various times as mentioned above. However the Minoan cult associations at this cave are so strong, and this together with evidence for the use perhaps by the Minoans of a natural concretion as an aniconic cult object, mean that the cave has to be considered in a comparison of Minoan cult practices.

Some of the caves, particularly Chosto Nero and Phaneromeni, have only been very briefly published, but sufficiently for a good picture of their actual contents to be obtained, but with fewer details than is desirable for exact dating and knowledge of find-spots.

Cave sanctuaries

	Pre.	Pro.	N.I	N.II	Post.
Amnisos		*	*	*	*
Arkalochori			*	*	*
Chosto Nero			*	*	
Kamares		*			
Patsos			*	*	*
Phaneromeni			*	*	*
Psychro	*	*	*	*	*
Skoteino		*	*	*	*

8 sites

25 site units

CHAPTER FOUR

Material

4. MATERIAL

Categorization of material

The division of the material resulting from religious activity into types of shrine site is the starting point, as in many previous studies. The material from each of the sites chosen from the different types has then to be broken down to facilitate comparisons. The method chosen, perhaps the broadest and least refined of those mentioned below, but the simplest and easiest to use, is that which divides the shrine contents into four categories: the first is that of the natural or fixed features of the site and any fittings which were used for cult purposes; the second comprises the material equipment of the shrine, a heading which covers a great deal of material and needs many sub-divisions, usually consisting of one distinct type of object; the third is that of votive objects and decorative and symbolic elements, also a large category; the fourth, perhaps the most important and, it may be noted, the smallest, is that of cult objects, in effect the recipients of all the ritual activities taking place.

Thus the material is divided into functionally different categories in the framework of a religious

use. The first two are the cult paraphernalia, either fixed or moveable, which enabled the cult activities to take place and were used in some way in the cult ceremonies. Next are those objects and items made as offerings in the shrine in the course of, and the result of, the religious activity, as well as the symbols of the cult and its decorative elements. Finally is the visible expression of the worship: the cult object.

The above division of material evidence found in cult sites is basically on a functional determination (which sometimes has to be assumed but for which there is some evidence always). Each plays a particular role in the process of the religious ceremonies and practices of the cult site. Sometimes the role or function of various pieces of equipment overlaps, such as the several different types of object involved in any way in the making of offerings. Here sufficient dissimilarities exist, or rather obvious substantial individual characteristics - of shape, size or in some cases material - for each type of object to be recognised and so to be put into separate categories of object, while the similarity in function will also be mentioned.

Often of course the divisions, the names of the objects, implicitly involve a recognisable and more or

less canonical shape, appearance or special features - on the whole it has not been deemed necessary to overturn such traditional terminology, while not allowing any assumptions of nature or function or status to creep in without question. Still differences between the individuals of each group do exist to a greater or lesser extent, and in such cases to avoid creating a new category for each individual object showing slightly different characteristics, a balance has been sought between the function and the appearance to fit such objects together in an acceptable way.

The material used in the manufacture of the objects has not usually, though sometimes, been the primary determining factor and has been subordinated to the function and shape (which often are inseperably connected). The choice of material would seem to be of either a more practical nature, as suiting a particular function or shape, or due to aesthetic tendencies of the artist or the period. So as such it is not considered the most important or significant factor in making the divisions between objects, which then can be usefully compared to reveal overall conclusions. However, the fabric of the objects will always be mentioned and sometimes indeed it is seen to create sufficiently distinct characteristics of the

objects as to require separate divisions.

The large cult equipment category might alternatively be broken down further into a functional one determined by an assumed temporal sequence of cult activity. That would firstly consist of those objects involved at the first stages of the preparation for ceremonies, such as cooking pots and grinding tables. That such activities went on and what was produced are to a large extent hypothetical since all the products will have perished and only the equipment is left to point to an assumed purpose. The next stage in the sequence of events is the conduct of the rituals and ceremonies: the main activity of the shrine. This would involve equipment such as altars, offering tables and a variety of stone and pottery vessels. Finally comes the receipt of the ritual activities, that is the storage of the items offered which would require storage jars and places for votive collections of all kinds.

This last method of approaching the material is practical and valid and will be mentioned where applicable, but primarily the method used will be the one first outlined. It is the broadest and simplest but it also makes fewer assumptions than the other types of division.

Under the first heading of features and fittings

come those aspects of a site which form an integral, structural part of the shrine. Included are such constructions or furnishings as hearths, benches, ledges, niches, which can equally well be found in non-religious contexts and are common features of Minoan domestic architecture. All of them, when found in what may be defined as religious areas, were used to assist in the cult practices of the shrine, often in a support or display function for cult equipment of various types. They might also have some part in actual ceremonies by being channels through which offerings were delivered to the divinity. For instance hearths and fissures in rocks were often packed with votive offerings, presumably serving as some kind of intermediary between the real world of the worshipper and the supernatural one of the divinity, with apparent chthonic implications. The role of these fixed features in the religious life of the shrine was usually a structural and practical one.

The second main heading under which shrine contents are divided is that of material equipment. By this is meant the moveable furnishings and objects which were found in the shrine and chosen to be accessories to the processes of the cult, either in the actual ceremonies or for preparation and storage, i.e. the cult equipment. The whole is a very large

category of objects, some of which, though not many, seem to have had an exlusively cult use and may be identified as such. More often they are in some way adapted to cult use or given cult intentions by decoration or association, or just by being dedicated and used at a shrine. It therefore includes everything from the most ordinary domestic pottery here put to cult use, as well as finely crafted vessels, libation tables and altars of the smaller, moveable kind. They were all particularly selected for cult purposes within the shrine and form valuable evidence for Minoan religion, though their implications are as varied as the list.

The third main division comprises those objects which do not have such a practical function in assisting in ritual activities directly, but are part of it by themselves being the objects offered or are important symbols and adornments of the cult; they are non-utilitarian. Again this is a large and varied group and in some cases, for instance the different types of tools and weapons, it is not certain whether they did in fact have rather a practical use or were votive offerings though capable of being used, so that there is some possibility of overlap between the two categories of material.

There are few objects indeed which can by

themselves be taken as evidence or unequivocal indicators of religious practices. The problem is complicated since context alone can invest objects with a religious character, and there is thus a danger of circular argument. The Minoans freely employed many ordinary vessels and objects with a practical function for cult purposes. This is perhaps indicative of a lack of any formal demarcation between the secular and religious areas of life in the Minoan mind. In this way domestic articles such as incense burners, blades, spindle whorls, as well as a variety of vessels, from both of the categories outlined above, may be found in identified shrines. The same objects found elsewhere in domestic quarters or storerooms cannot there necessarily be identified as having any religious function, or as indicators of religious associations for the room they were found in.

The list of domestic vessels adopted for use in religious life is long, and it would be difficult to give every possible example. Many perhaps started life as pots for everyday use and are of exactly the same style and manufacture and material as ones found in secular situations. Some are modified slightly to suit a more specific purpose by better manufacture or adapted in some way, such as the tripod tables from Knossos (d). Decoration often gives a clear indication of cult intentions by being more elaborate

and painstaking or including apparently religious symbolism.

Some few objects and vessels have been widely accepted as having a usual, if not exclusive cult function. The kernos and the rhyton are two such, though opinions do vary over the validity of assigning even these an unquestionable and solely religious function. The kernos, a composite vessel with much variation of actual form, has a long history in Greek religion, and its cult associations there seem certain (Xanthoudides 1905-06); in the Bronze Age those examples found in shrines seem to have been for ritual offerings, and certain forms with large numbers of cupules seem clearly religious. The vessel called the rhyton would also seem to have strong cult connections. It too can take on very different shapes while retaining the essential feature of holes allowing liquids to pass straight through. In religious contexts therefore a use for libations seems most likely. It has now been suggested that the rhyton in some forms can equally well be used in domestic contexts and so can no longer be accepted as having an exclusively religious character (Koehl 1981). However the majority of examples come from religious contexts and the care, resources and artistic skill employed in the manufacture of many strongly suggest a primarily cult

use.

Another vessel with strong associations with Minoan religion is the so-called snake tube or tubular vessel. This is a cylindrical tube, usually, though not always, with a base, and often having handles in the form of plastic ornaments which are very suggestive of snakes. This taken together with the occasional appearance of other religious symbols, such as miniature horns of consecration and discs, give the vessels definite cult associations, though their precise derivation, interpretation and function are still rather uncertain (Cadogan (1971); Gesell (1976)).

The above vessels have particular Minoan connotations. The piece of equipment perhaps most readily associated with religions of all times and places is the altar. This is a very wide term but basically it can be taken as the name given to an object which serves the function of a stand or support on which are placed for offering, display or worship the most revered objects of the cult. Most notably of course this includes the recipients of worship themselves, where present, and it is around the altar that usually the most important ceremonies take place. For Minoan religion the evidence seems clear that benches built into the structure of a room could serve as altars. They seem in fact to be commoner than what

might be to us more recognisable as an altar: that is a moveable, often free-standing, table-like object. Their recognition is not always simple but when identifiable as such, by position, form, and related objects, altars are one of the least equivocal indicators of the presence of religious intentions.

There are some objects, together with their symbolic forms, which undoubtedly had a great religious significance for the Minoans. These are primarily the horns of consecration and the double axe. They are found both as actual examples and also symbolically and figuratively in decoration. They appear frequently in cult contexts and must have held an important position in both the religious devotions and imagination of the ancient Cretans. However, their presence or absence alone cannot be taken as conclusive proof of cult activities and their precise significance and origins are still matters for debate. The actual role they played in every context, whether symbols of, or attached to, a particular deity; fetishes; or general consecrators of equipment and markers of a sacred place is not always absolutely certain. Again these will be treated more fully, with the examples below. What does seem clear is that neither were actual objects of worship; their roles in fact were probably quite different from each other, but they were both very prominent features of Minoan religion.

Here have been mentioned just a few of the more important objects which form the different sub-divisions of the second and third categories of material equipment and votive and symbolic objects. They will be dealt with separately, more fully and with a list of examples found in the chosen sites, in what follows and many more of the objects of various kinds will also be discussed.

Worship always has an object or objects: a focus for the devotion of those who worship, and this is the fourth heading or category in division of material. Whatever identity this super-human power takes it is often made visible for the worshippers in solid form and by artistic representations. Cult objects in human and aniconic form have been well attested in Minoan cult contexts, but it is still very hard to formulate rules for the definition and recognition of such representations of divinity, as will be discussed later in the appropriate place.

The listing which follows is intended to define certain terms and labels used in describing both features and objects found in Minoan cult places. These will then be the basis for the final comparison. The description and definition must be on both physical and functional grounds since the two are often

inseparable: physical appearance is in many cases determined by the requirements of function. This of course is not always so and the function can be more independent of form, and in some cases will be treated as the determining factor. For instance, benches, as will be explained in the appropriate places, can serve a variety of functions while retaining the same form. This is of great importance when one of those functions is identical to that fulfilled by other features with the defining characteristics of altars. In such cases, where the intended function as an altar is beyond doubt, the bench, possibly exactly the same in structure and form as features listed elsewhere under the heading of bench will be included under the category of altar on functional grounds. Many of the features and objects below do not cause such complications, and physical appearance and function are coexistent to the extent that they may be defined together without the problem of over-lapping other categories.

Some labels and titles have in the past been widely applied and accepted but now require clarification since they implicitly assume a certain status or function. Discussion is also needed where objects have a peculiar and complicated significance in Minoan religion, notably the double axe and horns of consecration. It is also helpful, as mentioned above,

where items appear in different forms but for the same purpose, or the same form is used to serve different ends, to bring these together and make clear why this is done so. Some of the objects under discussion ideally require greater detail and depth of study than can be attempted here, so that some assumptions regarding their function, significance and origins will have to be accepted with only a summary of the state of the arguments and conclusions of others.

Certain objects do not fit into the larger categories at all, or rather they occur so infrequently, if not uniquely in the body of material, that each would require listing separately. These will be present in any comparisons and discussions where relevant and it would be superfluous to repeat them individually here where they can not be brought into any useful or revealing groups, and are not in need themselves of definition.

On the other hand it will also be noted that some of the category headings, such as jewellery and small objects, or blades and tools, involve a wide variety of objects. Such collections under one heading can be considered to have sufficient functional similarities to be brought together, while it is often the differences and range within the broad outline which are of interest.

Pottery of all kinds very often forms a large part of site deposits. It is not always possible to make many distinctions between the various vessels, even from any one site due both to the quantity and quality of details, or lack of them, in the published reports - in many, pots are not individually listed and also because of the fragmentary nature of the material as found. For the same reasons it is also hard to divide the mass of pottery material from all the sites into individual categories of vessel type. Some larger functional divisions may be recognised, such as storage jars, offering vessels, and some with more explicit functions such as incense burners. In this it is possible sometimes to recognise the functional and sequential divisions mentioned above: there are vessels involved in the preparations for cult activities, those in the actual conduct of rituals, and those used for storage of the offerings made. But even so these still cannot include every single vessel from every site and any presentation of the material is bound to be incomplete for the reasons stated above, though still some indications of overall patterns of usage may become apparent.

There are some vessels which can be made into separate categories needing closer definition and explanation because they possess greater religious

significance and apparently closer specific connections with cult activities than the rest of the pottery finds. These include the so-called snake tubes, the kernos and the rhyton (the last two also occurring in other materials apart from clay). Miniature vessels also form a naturally distinct category. Their size, which sets them apart, also perhaps points to a function not so obviously shared by any other pottery vessel - that of being votive offerings in their own right.

It is worth mentioning again the dependence of this work on published site reports. The vast quantity of features and objects, from the largest structure to the smallest fragment, from all the sites used, could not be investigated individually and so a heavy reliance is placed on reports and photographs. This does mean that sometimes insufficient detail is available.

When making a comparison of the items in the heading of fixed features and fittings it may happen that some accidental weighting occurs towards a certain site type. It concerns those features which are usually built, such as benches, ledges and vats. These might reasonably be expected to occur more frequently in sites where a larger amount of construction was involved than in those adapted from

natural features with little or no additional structures. This would produce a possible bias towards settlement sites over cave and peak sanctuaries. (Though the sparse structures sometimes found in the latter could contain some of these features.) It is especially likely since the shrines found in settlement sites are built with very little, if any, differences in architecture or fixed furnishings to the surrounding secular rooms where such features also occur, being of normal domestic use.

The following then is a list of categories of features and objects found in the chosen sites, with definitions, discussion and references, which form the material evidence of religious activity and are the basis for the comparison from which the question of the unity and diversity in Minoan religion can be approached.

The material is discussed chronologically and by site type under each heading. The state of preservation of the material and inadequate detail in site reports may lead to uncertainties of precise identification or, more often, dating and such objects can only be included in a certain category or period with reservations which will be noted. The order is as set out above: firstly the fixed architectural or natural features of a shrine; then the cult equipment

used in the ceremonies; thirdly the votive objects deposited at the shrine together with other non-utilitarian objects and symbols; and finally the objects of cult themselves.

I

Architectural features

ALTAR

The term altar has been widely used throughout the history of religion and has many connotations. An altar in this context is taken as the piece of equipment in shrines fixed or moveable but basically a stand, which, because of the objects on it, is the place of greatest veneration. It was where worship was focussed and offerings made as it is the place where the important cult accessories and possibly cult objects or idols were displayed. This would make the altar and its surrounds the most sacred area of the shrine. To emphasise its status and that of the objects on it, the altar was often in a dominating or imposing position, for instance opposite a doorway.

The Minoan altar is found in different forms which all fulfil its function as stand or support for cult paraphernalia; these forms are dealt with separately since their physical characteristics are so distinct, two falling within the fixed feature category; the third comes under moveable equipment. All however in some way serve the main functional requirement of an altar: that of a reserved stand or support for important ritual objects.

A) <u>Bench</u>

This is one type of fixed structure which can be included in the list of altar forms, but it also can be identical in form and construction to what is listed elsewhere as a bench and which served a different function. In certain circumstances, from the evidence of position within a shrine and associated objects, it is apparent that the intended function of some benches was as an altar. In fact the bench shrine is a specific type of cult room, usually fairly small with one or more benches, one of which may serve as an altar.

Clear evidence is not always available to make such a functional distinction between structurally similar features, and these, some of uncertain function, together with those of obviously different function will be listed separately under the heading of <u>Bench</u>.

The standard construction is of slabs with an earth or rubble fill, built up against a wall. There are however other bench-type altars performing the same function, but which are different in structure. Often they are very low, no more than raised slabs

formed at Juktas by the extension of a foundation layer, or just be a single layer of slabs. Natural rock projections might also be used as bench altars and even pebbles strewn over a small area to serve as a 'bench' to support important cult equipment. These are extensions of the basic bench form but are still in the same functional category.

B) Another type of altar which also comes under the heading of fixed features is the large, free-standing massive form. Constructed from blocks of masonry, posibly very rough and unworked but also worked and finished, which were fitted together with or without mortar and sometimes stuccoed. They are usually fairly rectangular but also may be stepped. Most of the altars of this type occur outside, perhaps because of special public ceremonies associated with them but also probably because this type of structure is best suited to the conditions.

C) This type is of stone but smaller, portable and carved from one block. The canonical shape is roughly a tall rectangle with incurving sides. Not many examples seem to

have survived but this type occurs frequently on seals and rings and also a model example.

Altar - bench type

Prepalatial	settlement:	Myrtos
Protopalatial	rural:	Archanes
Neopalatial I	settlement:	Phaistos (d) ?
		Zakros (a) ?
Neopalatial II	settlement:	Knossos (k) ?
Postpalatial	settlement:	Haghia Triadha (b)
		Kannia
		Karphi (a)
		Knossos (m)
		Knossos (n)
		Katsabas
		Karphi (b) ?
		Karphi (f) ?

Altar - bench type

Initially it is worth noting that there is a distinction to be remembered which otherwise may cause confusion. A bench sanctuary is a type of shrine within the overall category of settlement site sanctuaries in which the actual shrine room contains a bench or benches. Often the evidence for the use and status of such benches is not at all clear, but the presence of a bench in a shrine room does not necessarily imply that it was a bench-altar, and so all bench sanctuaries, for instance Gournia, may not be included here. On the other hand a bench used as an altar could turn up in other categories of shrine also, though perhaps this is less likely on account of the small amount of construction at these sites compared to the built types. The present category is concerned with identifying benches which were used as altars. Unfortunately the evidence is often inconclusive or uncertain.

By far the majority of examples of this particular feature in fact do occur in settlement sites and in all the main periods. One has also been found in rural sanctuary, but none so far has been certainly identified in caves or peaks, though in the case of

Juktas a bench is located in one of the rooms there but there are no indications that it was used as an altar.

Although the bench altar is most common in shrines in settlements the proportion of sites where it is found is not very great, being under half at all periods and apparently particularly low in neoplatial times. Chronologically the bench-altar has a long history with its earliest identification being in the prepalatial period. In protopalatial times while benches in sanctuaries are not uncommon their function as altars is usually disputable. In fact Gesell ((1985) 14) states: 'There is no indication that these benches served as altars during the Protopalatial period.' It is particularly in the postpalatial shrines, when, as discussed previously, the so-called bench sanctuary achieves an almost set form, that the function of this feature as an altar is at its most evident.

By definition as the altar is perhaps the most sacred spot in a shrine, all the features listed here occur in level 1, primary situations. Variations do occur in the construction of this feature, which will be mentioned in the relevant places.

Prepalatial

In this period one of the two settlement shrines listed contained a bench-type structure serving as an altar. In room 92 at Myrtos a stone structure had been built against the East wall (Warren (1972) 86-87), it was a simple form of bench with a filling of clayey earth topped by two stones. As excavated it was only 0.13m high but may have been originally double this as a loose slab had been removed. This bench structure can be interpreted as an altar since the goddess figurine was found in such proximity to it that it almost certainly once stood on it. One or two of the vessels found in this room had also been situated close to the altar, though apart from the goddess herself it appears nothing else was actually on it.

Protopalatial

In the protopalatial period three rooms identified as shrines in settlement sites and one rural sanctuary contained bench structures which may have in some ways fulfilled the function of altar, though the evidence for such a function in the case of the settlement shrines is very doubtful and in fact insufficient for them to be included here. These are the shrines of Mallia (a), and Phaistos (a) and (b). In the first two of these a closely comparable situation existed of a bench or benches being found in the same room as a

clay rectangular offering table. No evidence specifically existed to show that any important ceremonies, or offerings, were attached to the benches. Phaistos (b) was slightly different in arrangement and although vessels were associated with the bench there is still nothing to indicate that it had any function other than for storage or practical use.

In the protopalatial period then all three of the level 1 shrines in the sample contained benches but in none of them is there conclusive evidence that these benches served as altars in any recognised way. However they are mentioned here as it seems that in two at least, where vessels were found on the benches, and it can possibly be conjectured for all, that their function may have been varied and not strictly limited to any particular role, so that in part or on occasion they may have fulfilled some of the purposes which are usually thought of as being covered by a single feature. In other words they could have served as a general support for whatever ritual activity was being enacted, and a special reserved spot may not have been deemed so essential, especially as various pieces of equipment specifically for making offerings wee also found throughout the shrine. It is also perhaps worth noting that in none of these shrines were any figurines or cult objects found.

Rural sanctuaries

At the same period the rural sanctuary at Archanes had bench-type structures, of varying construction, in all three main rooms. Two of these seem to have served as altars, the third less probably so, though in all the evidence is not certain.

In the southern half of the eastern room natural rock, supplemented by small stones, had been formed into a stepped bench of three levels, the lowest being half the width of the others, in which the excavator recognised a possible altar. (Sakellarakis, (1979a) 375,379 and (1979b) 31 (1981) 218). A large quantity of vessels was found on this construction or fallen from it, some of which were very interesting (*op.cit.* 1979a) 379-81), and included a stone offering table. This abundance of vessels may, it has been suggested, have resulted from the continuous making of offerings at the shrine, in this case bloodless ones (*op.cit.* (1979b) 31), so that this stepped bench on which they were offered and displayed would be performing the role of altar.

In a corresponding position in the central room, across the south wall, was another bench structure though of different proportions and construction. This was a low bench with nearby a pair of clay feet

(*op.cit.* (1979a) 364,368-69, (1979b) 31 and (1981) 218), or at least one was still on it and the other had fallen from it.

These feet are interpreted as coming from a wooden cult statue or *xoanon* and if indeed the image of the divinity stood here then the bench can certainly be regarded as an altar. Found close to the bench were many very fine pottery vessels which again might have contained offerings, and in front of it a section of the natural rock has been left uncarved (*op.cit.* (1981)).

The least certain of these possible altars in the sanctuary at Archanes comes from the western room, which contained some of the most remarkable remains of the shrine. The excavator recognised a probable bench along the east wall from an accumulation of hundreds of small stones, too small to have come from the walls (*op.cit.* (1979a) 384-85). There were also some bricks mixed in and amongst the stones were found some sherds of fairly coarse pottery of large sizes. This does not offer any indication of functions connected with an altar, and the bench seems not to have been one. There existed in the same room an altar of a different type, free-standing, described elsewhere.

Neopalatial I

In this period benches are found in only three of the 18 level 1 primary shrines in the sample and in all cases there is no conclusive evidence to identify them as altars. However the possible implications of the presence of such features in shrine rooms which could serve as altars cannot be entirely overlooked and so they will be mentioned here if not all finally included in the category of altars.

In the case of room 10 at Phaistos (d) the identification is not entirely improbable, although Banti ((1941-43) 45) disputes the status of the four joined rooms as a shrine at all. Benches were found on the north and south walls of the room which were made of stone covered in stucco, the north one being c.0.30m high and the other 0.35m. At one end of the south bench is a special arrangement of a slab of grey limestone, 0.735 x 0.36m, this slab was finely worked with a border around the edge carved to form a projecting lip half way along the front side, the whole possibly forming a libation table (Gesell (1985) 33). The bench therefore may have been a focus for offerings and thus in part at least fulfilling the functions of an altar, though not entirely. There are no particular indications of the use of the north bench.

The same room contained the only figurines of the

shrine, which are rather rudimentary and have nothing to suggest that they were anything other than votive. A vessel in the form of an amphora with its mouth closed by a clay cover pierced by a hole with a corresponding one in its base may have been used for libations. The room therefore does seem to have been the actual shrine and the benches, especially the southern may have had some of the attributes of an altar, but there is nothing concrete to confirm this.

In another two sanctuaries in settlement sites in this period benches have been found which were identified by their respective excavators as seats for worshippers at the shrine. In the case of Mallia (h) XVIII this interpretation seems most likely since the bench was situated near a possible door, with no associated objects and the focus of the shrine seems to have been towards an altar of a different type which did have objects placed in relation to it.

The other shrine room with benches is Zakros (a). In room XXIII, the actual shrine room, were two bench-type structures, of different heights, the lower one being diagonally opposite a ledge, or higher bench. The former was thought by Platon to have been used as a seat for a single worshipper (Platon (1963) 174 and (1971) 125). However around the bench and along the east wall was a group of about twelve ovoid clay

rhytons and other vessels, and nearby were two quadrangular sheets of bronze embossed with lilies, possible once covering a box. These objects seem to have been closely associated with the bench and probably were once placed on it, which would seem inconsistent with its use as a seat and indicates a function connected rather with the display of cult equipment.

The ledge in the same shrine may also fall within the category of bench, and in the first reports (Platon (1963) 174), it was described as a high bench within a niche, of the type usually used for the display of figurines, though nothing was found here (*op.cit.* 175; Platon (1971) 125).

In the same shrine room therefore two bench structures of different heights were built on opposite walls, though not directly facing one another. It is difficult to ascertain which, if either, of these two served as an altar. The possibility that both were cannot be discounted as altars and offering tables are found together, for instance in the later Shrine of the Double Axes, Knossos, and at Karphi (a), two different types of altar structure exist together. A more closely comparable situation exists also at Phylakopi, which is also later, LHIII A_2 - $IIIc$. In the West Shrine in its various phases several platforms were

found to have associated objects (Renfrew (1985) 47ff., 361-64,367). Renfrew calls such platforms display facilities and attention focussing devices, both attributes of altars. He also acknowledges that the platform in the East Shrine could have served as an altar (*op.cit.* 362).

The height of the second bench in the shrine at Zakros makes a function as either bench/seat or preparation and storage area seem impractical though the absence of objects associated with it renders any identification of it as an altar at best only conjectural. A comparison may also be drawn with the niche in the later (Neopalatial II) so-called inner sanctuary of the Throne Room at Knossos (k), for which Evans also suggested a function connected with the display of cult objects ((1935) 920) though as no very distinctive objects were found here either the comparison is not very helpful.

The lower bench in the Zakros shrine apparently was used for the storage and display of important cult equipment. But whether its status was just that or whether in some way it was also serving as an altar is perhaps too fine a distinction to be able to make with any certainty. However from the few indications available and the possible comparisons drawn the benches in room XXIII at Zakros may provisionally be

accepted as structures performing the function of altar.

When taken as a proportion of all level 1 shrines in the neopalatial I period, the bench-altar does not appear to have been very significant, with one or two possible examples from the eighteeen in the sample. Other forms of altar will also be considered however and in conjunction with the present one before any conclusions can be drawn about the overall importance of such features.

Neopalatial II

No certain bench-altars have been recognised from the neopalatial II period either, though as already mentioned the feature located in the inner room of the Throne Room at Knossos may have been a sort of altar, and the benches of the Throne Room itself are also worth considering in this context. These latter were made of gypsum and situated next to the throne itself, on an adjacent wall, and opposite the throne along the parapet of the lustral basin (Evans (1899-1900) 37). Those closest to the throne may indeed have been seats (Evans (1935) 907), while that along the parapet of the basin certainly seems to have supported and displayed objects as indicated by the carbonized wood and faience plaques found immediately in front of it on the floor,

which may have come from an inlaid box originally placed on the bench (*op.cit.* 940; though Evans earlier (1899-1900) 41-42) suggested that these remains were from ceiling beams; however these are insufficient indications to prove its use as an altar.

Postpalatial

Eight of fifteen level 1 shrines at this period contained benches, of these six (and possibly a seventh) were associated with indications of their use as altars. Proportionately this is a marked increase on the preceding periods, and in addition to this their identification and role as altars is on the whole much more certain and unequivocal. This is in fact the period when the bench-shrine achieves its most canonical form, though not all the shrines discussed here conform to that pattern and the bench is not an essential feature of postpalatial shrines.

The Shrine of the Double Axes at Knossos (m), represents the most classic and well-known example of this type and is dealt with here first as it forms the pattern. This is a very small room $1^{1}/_{2}m^{2}$, with a bench stretching across the back wall directly opposite the doorway (Evans (1901-02) 96 and (1928) 336). This was made of clay and rubble and faced with plaster, on it, still *in situ*, were figurines including a cult

image, together with some of the most potent symbols of Minoan religion, the horns of consecration and the double axe. The bench structure in this situation was undoubtedly performing all the accepted functions of an altar. It was the focal point of the whole shrine and was used to place in a prominent position the most sacred and important images and symbols in the sanctuary. In the same room, across the middle, was a raised dais, reserving the area directly in front of the altar, on which was fixed a circular tripod plaster table, so that apparatus for making offerings was present in the same room as the altar and directly in front of it.

A very similar structural arrangement of a rectangular room with a bench across the wall facing the entrance was found at Haghia Triadha (b) (Banti (1941-43) 31,38). Here building H, situated in the southeast corner of the site, seems to have been an independent sanctuary. There has been some debate over the dating of the three different floor levels of the shrine. Banti (1939) 265 and (1941-43) 30), followed by Rutkowski ((1986) 162-67), believed that the first phase, that represented by the floor painted with the marine scene, was built in MMIII or the beginning of LMI. However, this date was revised by others and by Banti herself, firstly on stylistic

grounds (Graham (1969) 208; Platon (1971) 125; Hirsch (1977) 10-11 and (1980) 459-61 and n.53), and recent re-excavation and study of the original notebooks have confirmed the revised idea and allowed a clearer and more correct picture to emerge. It is now apparent that the shrine building and its three levels belong entirely to LMIII (La Rosa (1984) 185 and (1977) esp.103-04), possibly being first built in LMIIIA2 (*op.cit.* (1977) 339-40) and destroyed in LMIIIB (*op.cit.* and n.72).

The bench itself in the first phase was plastered and painted with swirls in red, blue and white (Hirsch (1977) 10). In the later phases it was replastered but apparently not decorated and measured c.0.65m long. On the bench when it was excavated were found several bowls and miniature vases with globular bodies, all overturned. Tubular vases were associated with all three levels of use, but no figurines were found. The identification of this bench as an altar rests mainly on its relative position in the room and a comparison with that in the Shrine of the Double Axes, Knossos, mentioned above.

In the so-called Temple at Karphi (a), of LMIIIC date, is another example of a bench which was probably used as an altar, as it supported and displayed the most important objects of the shrine, the cult images.

Here however the positioning and precise nature of the structure are different from those discussed above.

This structure was in fact called a ledge in the original reports (Pendlebury (1937-38) 75), but its general description conforms to that of other benches in this category and it is described as such by both Gesell ((1985) 79) and Rutkowski ((1986) 167 and n.45). It was formed by the construction of a front retaining wall a short distance ahead of the main wall of the building, the gap thus formed being filled with stones. The impressive cult statues probably stood on this bench (*op.cit.* 75 and Rutkowski *op.cit.*), though one was found in one of the rooms attached to the shrine. Another altar structure, but of a different type, was present in the same sanctuary, described in the appropriate place, though whether the use of these two different kinds overlapped or whether they shared the various functions between them can only be a matter for speculation. The figurines perhaps were kept permanently on display on their more elevated and protected structure, though as one was found elsewhere this too is not certain. Whatever the case it is at least apparent that more than one type of altar could be present in the same sanctuary.

The so-called Fetish Shrine in the Little Palace at Knossos (n) also has a kind of bench structure which

may have been used as an altar. This room underwent different phases of use, being built originally as a lustral basin. In its later use in LMIIIB there is evidence of cult activities which however do not seem to be related to its form as a lustral basin and certain alterations had taken place. There has been some debate as to whether the tank itself has been filled in and the floor level raised for this later use (Platon (1967) 241; Rutkowski (1986) 131). However as Graham has pointed out ((1977) 125 n.60) this view has arisen from a certain vagueness in Evans' original report, and that the floor level was not changed. The side balustrades were filled in, thus closing the room off more and the southern one seems to have been re-used as a bench structure, which in effect, as in the examples mentioned above at Knossos (m) and Haghia Triadha (b), stretched across one wall. That this bench performed the role of an altar in its secondary use, is strongly indicated by the objects found on it or fallen from it, as well as its relative position in the shrine. A pair of horns of consecration stood on it, originally together with natural concretions which may have been the cult objects of the shrine. Of these one remained on the bench while the others has fallen from it into the tank, and one was found elsewhere (Evans (1904-05) 8 and (1914) 61; Rutkowski (1986) 143). Also on the bench was a clay figurine of

an agrimi, with more fragments scattered around.

Here again the bench structure was used to support the most sacred objects in the shrine and to display them in a prominent and elevated position, fulfilling therefore the functions most closely associated with the piece of equipment called an altar.

At Kannia the positioning of the benches found in three rooms, in relation to the general form of the room is not the same as the above examples, though the function as altars is indicated by the objects found. Benches were found in rooms V and XV, and room I contained a small pavement of slabs along the west wall which may have been a substitute for a bench (Levi (1959), 245,246,249). Room V had a bench along the north wall and a lower, narrower, one also along the south wall; room XV had a bench only on the west side. In all three rooms were found many figurines, whole and fragmentary, including some of quite large size with snake attributes. In two other rooms in the sanctuary complex figurines were also found, room III, where only fragments were discovered, and room VI, where only six smaller figurines, possibly all votive were found.

The goddess figurines were mostly found scattered around their respective rooms and their original position is not certain. However it was reported that in room V the bottom of a large bell-shaped idol was

found on the south bench (Levi (1959) 247) and so it is possible that other figurines were also originally placed on these structures in the various rooms. Other objects also stood on the benches: in room V some stone vessels and a pinax depicting two griffins heraldically placed with their front feet on a possible incurved altar were found on the two benches (*op.cit.* 246-47) and in room XV the only other object specifically reported as coming from the bench was a low basin (*op.cit.* 249).

This site has never been finally published and it is not completely certain which of the rooms were actual shrine rooms. Gesell includes only room I as a bench sanctuary, all the others being subsidiary rooms in her view ((1985) 77-79), though in the original report it was suggested that these three rooms with benches were all sanctuaries, room I being the largest (Levi (1959) 245,246,248), but also room VI (*op.cit.* 248). Hood considered that room XV was the central shrine ((1977) 170). The presence in rooms I, V and XV of important goddess figurines along with other religious objects, such as tubular vessels and libation tables, are strong indications that all three may have been shrine rooms, especially as none have any particular signs of being used for other purposes such as storage or preparation. If they are accepted as

shrines the benches in them, at least one of which certainly supported a cult figure, could be regarded as altars, though it is impossible to prove such an identification.

At Katsabas a very different arrangement existed but one which the excavator suggested was an altar and fits into the present category (Alexiou (1955) 312-13; Hood (1955) 29). In a small triangular room, probably added to the adjacent house, a table-like structure was built across the apex of the triangle facing the doorway, consisting of two stone slabs resting on three supports (one slab is preserved). In this case the structure is not built back against a wall, as with all the other benches mentioned so far, but the cause for this could well be the unusual shape of the room, itself resulting from the existence of a road passing at an angle to the house. It is significant that the bench structure is parallel with and facing the entrance, merely ignoring the physical shape of the room to achieve this relative positioning, rather than placing it flat against any of the other available walls.

The construction is also slightly unusual in that it was not solid or filled in and the space underneath was used for storage. It is not unknown for storage spaces to be incorporated into benches, for instance in

room VIII of the protopalatial shrine at Phaistos the end of the bench on the east wall was formed into a cavity for storing objects, though this has not been identified as an altar.

In front of the bench-altar on the floor lay two tubular vessels, which may have fallen from it though tubular vessels seem on the whole to have been placed on the floor in front of altars as at Haghia Triadha. Underneath it, in store, were an incense burner and other pottery vessels. The positioning of this bench and the fact that all objects were found under it or possibly fallen from it, make it the focus of the room and are strong indications of its use as the altar for this simple shrine.

There are other postpalatial level 1 shrine rooms in which benches have been found for which there is even less or no associated evidence to demonstrate their function. For instance at Karphi in two separate shrines, rooms 27 and 57, (f) and (b), the natural rock has been adapted to form a bench like structure. In the first two rhytons of unusual form were found very close to the rock, the inference being that they had fallen from it; in the second there is apparently no direct physical association between the objects found and the rock bench. It may be conjectured therefore, at least in the former case,

that these benches adapted from the naturally occurring rock incorporated some of the functions of an altar, though there is no direct proof of this.

In the postpalatial period the bench achieves a recognized standard form as an altar and in some shrines it was indisputably used as such, though there is more uncertainty surrounding others. The bench-altar now seems to be a deliberate structural element, included in a particular place, as was seen at Katsabas, and for a particular religious purpose, rather than as in earlier periods just being a usual architectural element of a room and put to a cult use, possibly as an altar. In this period also the association between the bench-altar and shrines in settlement sites is at its closest and most exclusive and may indeed indicate a special form of cult. Four of the six shrines where the bench seems most certainly to have functioned as an altar also contained cult objects, in three taking human form; Karphi (a), Kannia, Knossos (m), and in the other nonanthropomorphic; Knossos (n). In the three shrines with divinities in human shape these were of the type of the goddess with up-raised hands, and the bench-altar therefore seems to be particularly associated with the worship of the goddess in this form, as Banti for instance has noted ((1941-43) 47-49).

Horns of consecration were found actually on the bench-altar at both the Knossian shrines with cult objects, and in model form on the head-dress of one of the figurines from Karphi (a). A model horns of consecration came also from room III at Kannia which was not furnished with a bench, the horns may originally have been attached to a figurine.

Apart from the above two categories, cult objects and horns of consecration, few other types of object seem consistently to have been placed on the bench-altar. There is one example of a double axe at Knossos (m), and the models of agrimi from Knossos (n). At both Haghia Triadha (b) and Kannia (rooms V and XV) vessels, in the former case pottery and in the latter of stone, also were placed on the benches, and again at Kannia, room V, a pictorial pinax came from one of the benches.

Conclusions

As mentioned above all except one of the identified examples, some highly conjectural, of this structure came from settlement sites, the exception being a rural sanctuary. It must be taken into account that built architectural features, such as this one which is characteristic of secular situations also, are easily transferrable into the religious sphere and

are therefore more likely to occur in contexts where a greater amount of structural activity has taken place.

Although the bench-altar has a long history of use in Minoan religion with the earliest recognised examples being in the prepalatial sanctuary at Myrtos it occurs only sporadically, if at all, in later periods until the postpalatial when it is a very important architectural feature of settlement site shrines.

A feature or piece of equipment performing the functions of an altar took different forms in Minoan religion, of which the bench is just one; each has to be considered in turn separately before an overall picture of the use of altars as a whole can be considered.

Altar free-standing, masonry

Prepalatial	-	
Protopalatial	rural:	Archanes
Neopalatial I	settlement:	Mallia (k)
	peak:	Juktas
	cave:	Psychro
		Arkalochori
		Skoteino ?
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
		Karphi (a)

Altar free-standing, masonry

This is a type of altar, also coming under the heading of fixed features, of large, free-standing form; constructed from blocks of masonry, possibly rough and unshapen but also worked and finished, fitted together with or without mortar and sometimes stuccoed. They are usually of roughly rectangular shape and may be stepped. Some, though not all, are located in the open-air, a distinction which will be noted in the disscussion of each example.

This type of altar again is a feature which can occur only in level 1 sites, and unmodified in the case of settlement sites, because it is a fixed feature and by its nature intimately connected with the most sacred area of a shrine. Even in peak and cave sanctuaries such a feature must still be primary and level 1 in its context though large amounts of disturbance may have taken place around it. The masonry altar is perhaps slightly clearer in its intended use than the bench type since it is a specially made structure and not one that has any place in domestic architecture or which allows any other so reasonable explanation in the situations in which they have been found.

There seems to be a more widespread use of this

type of altar through the site types, though there exist fewer examples, a possible seven being recognised from the sample, than the bench type. In each period and for each category of site it is always only a small minority of possible sites where this feature has been found. None have been identified until now for the prepalatial period and none specifically in the neopalatial II period either, though some may have continued in use in this period at certain sites.

Protopalatial

The earliest example of this type of altar so far discovered is also the only one found in a rural sanctuary. It is in the western room of the temple of Archanes-Anemospilia. In the northern half of the room was built an almost trapezoidal construction made of medium-sized loose stones bound together originally with clay (Sakellarakis (1979) 386 and (1981) 218), the whole measuring 0.63 x 0.76m. Its orientation, slightly inclined towards the east, is different to that of the building as a whole, which is north-south.

The final function of this structure was clearly indicated by the remains found on it: the skeleton of a young man, about 18 years old, lying on its right side. From the position of the skeleton and other circumstances including the large knife associated with

it, the inference must be, as the excavator has suggested, that this was an act of human sacrifice (*op.cit.* 389 and 218-22). The result of one of the most important and extraordinary ritual acts is therefore here found *in situ* on what, because of the nature of the ceremony involved as well as its physical structural characteristics, must be an altar. It is evidence of the most immediate kind of the use of such a structure as an altar in one of its most important ritual roles: receiving the sacrifice, probably usually a bull (*op.cit.* 389), (though N. Marinatos, (1986) 19), thinks the space and entrances too restricted to manoeuvre a bull into). In the same room was a probable bench along the east wall though there is no direct evidence for its use.

Neopalatial I

In this period occurs the first of two instances of this feature in a settlement site shrine included in the sample, though the evidence to support such an interpretation is not entirely conclusive. This construction was situated in room 112 of Maison E at Mallia, about 0.33m from one wall and 1.05m from another (Pelon (1970) 41-44). It consisted of large unworked blocks and was preserved to a maximum height of 0.57m above the natural ground, probably close to

its original height. Around it on the ground were found several fragmentary bricks, all of the same thickness: about 5cm, and showing traces of fire. The excavator (*op.cit.* 43) suggested that these may originally have covered the rough stones of the structure, the whole forming a rectangular altar, being in the wrong position and of unsuitable construction to be a pillar base.

The actual floor of the room, which itself was partly overlain by walls of a later date, could not be identified, but an occupation level containing ashes, fatty earth and bones of animals was, which reached down to the rough virgin ground (*loc.cit.*). An auge with two cavities was fixed on top of a small wall in the room and the objects found in the occupation level of the room included a fragment of a stone libation table, an abundance of small, plain handleless cups, two fragmentary marble figurines and models of a bird and a beetle. The precise functions of these features are not easy to interpret but the rough quadrangular structure may well have been an altar as the excavator has suggested, though there is no direct associated evidence to corroborate this, apart from its unusual construction and shape, excluding most other practical purposes and the fact that the other objects in the room which seem to be of a religious character. The remains of what appear to be animal sacrifices or

ritual meals are also very strong indications of the special use of this structure.

Also in the neopalatial period are other examples of masonry structures possibly serving as altars within settlement sites, but not included in the main sample. One of these is in the Central Court at Phaistos, though it is different from the others in this category as it is not totally free-standing. It was built into the north-west corner of the court and was formed of large blocks arranged into a stepped structure on a limestone plinth (Nilsson (1950) 118; Pernier and Banti (1950) 585; Gesell (1985) 30; Rutkowski (1986) 120,153). There has been much discussion about this arrangement and its function, Nilsson (*loc.cit.*) believed it was an altar, while an alternative explanation (Graham (1969) 78-79) is that it was a mounting block for the athletes in the bull games. Since no objects were found with it, nor were there any other features in the court to assist in interpretation it is impossible to determine its precise function, or whether it was specifically religious, and it therefore has not been included here.

Another possible example of this type of altar, also in an outdoor setting in a court but from a villa not a palace is located in the east court at Nirou Chani, a site not included in the sample. This again

was a stepped construction on three levels with the central part projecting forward from the two sides. Near the base of it were found fragments of a pair of stone horns of consecration (Xanthoudides (1922) 2-4,14-15; Shaw (1978) 446, n.32; Gesell (1985) 30,116; Rutkowski (1986) 16,120,147,153). The presence of this object with clear religious associations is good evidence for the nature of the nearby structure if not determining its precise function, whether dais or altar, though others (Shaw and Gesell *loc.cit.*) see it as the possible remains of a tripartite sanctuary.

Several examples of this type of altar, or closely related features, can be cited from the courts of settlement sites, and Rutkowski ((1986) 119-20,153) has a separate category of shrines comprising such structures in courts and open spaces, while at the same time acknowledging the lack of evidence to support such identification in many cases (*op.cit.* 120, n.13: "We admit that very few finds prove the cult use of the altars" - with reference to the structures at Zakros in particular (Platon (1971) 102, plan on p.150). Other such features were found at Knossos, in the West Court, (Evans (1899-1900) 10; (1900-1901) 21; (1928) 612-13) but again no corroborative material evidence exists to verify this supposition. This lack of associated objects or other information means that not only are we

unsure of the certain identification of such structures, but are also deprived of any clear insight into their nature and use.

However there is one important recent discovery which does point to the resolution of some of these problems, though unfortunately it is not yet fully published. The site of Archanes-Tourkogeitonia includes an open area in front of an entrance where four portable altars with incurved sides were found, and nearby, along the front of room 8, was an impressive masonry altar (Sakellarakis (1965) 560; Ergon (1983) 90-91; *A.Reps.* (1984-85) 58-59). It was formed of a raised platform on which stood the large rectangular altar made from well-hewn blocks and with a flat top of slabs. The drains found in its vicinity suggested to the excavator (Ergon *loo.cit.*) that it was used for liquid offerings. Also in the area were found two stone bases for double axes, triton shells and pottery, all of which contribute to the strong impression of the religious character of the area and the masonry structure in particular, though it must be noted that this example was not free-standing.

The only example of a free-standing masonry altar to come from a peak sanctuary belongs to this period and was found at Juktas. This large stepped construction was built at the highest part of the slope

on which the sanctuary was situated, crowning the terraces and ending the ceremonial way which lead up to it. It covered fissures in the rock and was directly on the lip of the beginnings of a large chasm, itself an important element in the worship at the shrine. The altar was rectangular and had three different steps of varying heights (Karetsou (1974) 231-32; (1975) 330; (1976a) 417-18; (1976b) 184; (1978) 247,251-52; (1981) 138,141, Fig.11). A kernos was re-used in the building of the altar, inverted in its lowest level.

Although no objects were found on or obviously fallen from the altar, its position and form are strong indications that this was indeed an altar and a very important component of the shrine. Very close to it was a pit containing ashes and a hoard of 30 bronze double axes, two of which were much larger than the rest, and a mixed votive deposit also came from this area (*op.cit.* (1974) 232-33; (1981) 145-46). The altar was not just a base for displaying objects but a very significant feature which together with the cave-like cavern formed the focus of the whole shrine (*op.cit.* (1978) 252).

The only clear man-made example of the use of a large altar in a cave is from Psychro which was probably built in this period. In the northwest bay of this cave was situated a free-standing structure

made of roughly square stones put together without mortar and resting on clay. When first uncovered it was about 1m. high, but unfortunately while excavating a large boulder fell on it and destroyed this loose structure (Hogarth (1899-1900) 98). Close by a piece of painted stucco was found, which the excavator thought might reasonable be the remnant of an original coating of the altar, and also in the area were found the only pieces of marble paving from the cave (*op.cit.* 99).

Hogarth (*op.cit.* 97-98) recognised four levels in the ground surrounding this altar, stretching from Kamares to Medieval times, which Boardman ((1961) 3) considered sensible and noted that they were all underlain according to the report, by a layer of yellow clay with 'primitive' pottery (Hogarth *op.cit.* 96). Very close to the altar, in fact almost touching it, was a piece from a large stone offering table inscribed with Linear A, and around it were many other stone offering tables and fragments of fruit-stands, probably MMIII, with plain cups and lamps. Although it is not explicitly made clear it seems that these objects date the use of this altar-structure to the neopalatial period (Hogarth *op.cit.* 98-99; Tyree (1974) 74,92) and Boardman thought it may have been a closed deposit (*op.cit.* 3).

The ceremonies associated with this large altar obviously involved the use of stone and pottery vessels, and the presence of deposits of ash and animal bones in this same area, and throughout the cave, indicate that animal sacrifice was also an important part of the ritual activity centred on the altar in this period (Hogarth *op.cit.* 97; Faure (1964) 152; Tyree *op.cit.* 92).

Certain other caves may have contained altars either of the same type, built of stones loosely put together, now disappeared, or closely similar ones carved from the naturally occurring stone outcrops and features in the cave, though the evidence both for their existence and dating is not as clear.

It has been suggested that in the cave at Arkalochori there existed an altar of this type (Marinatos (1935a) 250 and (1935b) 215). This was inferred from the concentration of small votive gold double axes found near the centre of the cave, which, it was supposed would have covered the presumed altar, but no material evidence for such a structure survives.

Altars have also been specutively recognised in some of the natural concretions found inside caves, possibly partly shaped by human hands, which also could be included in the present category being large, block-shaped and on the whole free-standing, or connected

only to nearby other concretions.

For instance in the cave at Amnisos in front of the stalagmites with the small enclosure a stone, almost square, has been interpreted by some as an altar (Hazzidakis (1887) 341; Nilsson (1950) 58; Platakis (1965) 211; Tyree (1974) 26), though not all seem to have recognised it as such.

At Skoteino there is also a possible altar in a large, rough calcereous concretion, this time near a wall, though its precise position is not exactly clear. It is in the second chamber of the cave (Tyree (1974) 21-22, says it was against the left wall), beside a massive stalagmite which resembles a female in profile near a natural 'well' which penetrates to the level below and could have been used for liquid offerings (Faure (1958) 40, (1964) 163-165, (1965) 325; Tyree (1974) 21-22,92; Rutkowski (1986) 4854-55). The rock was carved with two grooves (Faure (1964) and (1965) *op.cit.*) and in front of it and around the cave in general were offerings, mostly of pottery from all ages, mixed in with ash. It was in this area also that the 3 bronze LMI male votive figurines were found (Davaras (1963a) and (1969) esp.622) and which suggest a date of the neopalatial period for the use of this possible altar, though this is very uncertain and its use may have covered more periods than this. Although

ashes were discovered no animal bones are reported as being mixed in with them and so sacrifice of animals may not have been practised here. However since both identification and dating of this altar formation, as well as ascertaining exactly which objects are directly associated with its use, are so uncertain it is difficult to draw any firm conclusions about its use.

Another sub-category of such altars is that consisting of altars outside the mouths of caves, though again many of these are conjectural only. For instance outside the cave at Amnisos is an open space called the 'Terrace of Altars'. The name derives from a flat area with seven large blocks of rock which could possibly have been used as altars, however no associated objects have been reported to verify this identification, or to what period their use belonged, though it may have been contemporary with the so-called Priest's House (Marinatos (1930) 96,98; Faure (1958) 31; (1964) 84; Tyree (1974) 99; Rutkowski (1985) 55), possibly LMIII or post-Minoan.

Rutkowski (*op.cit.*) recognised a possible altar also amongst the blocks at the mouth of the cave of Patsos, but this has not been mentioned by others and there seems to be no evidence to corroborate this interpretation.

Most of the examples cited above are so uncertain both as to identification and dating that they cannot be included for the comparison. The only definite altar from a cave is that at Psychro, with the possibility also of ones existing at Arkalochori and Skoteino. In the first and last of these there is also evidence for the use of fire in association with them but only at Psychro does this seem to have been connected with the sacrifice of animals.

Postpalatial

Two examples of this feature come from the postpalatial period, both from settlement sites, Haghia Triadha and Karphi (a), but at the former, as already mentioned, it seems the site was no longer used for habitation, only for religious purposes. Both these altars were situated in the open-air.

At Haghia Triadha an area known as the Piazzale dei Sacelli seems to have been a large votive deposit with few connected structures and it is uncertain whether or how any of the surrounding buildings were attached to it. In the northeast corner of the area was a structure interpreted as an altar though with a certain amount of doubt, mostly as to its original form and final appearance. It seems it was constructed not of blocks as most other examples in this category, but

of vertical slabs forming a box, it is not known whether this arrangement was covered with further slabs or whether the whole was filled in, though there may have been a floor of pebbles and earth (Halbherr (1905) 370; Banti (1941-43) 68-69; Nilsson (1950) 99; Gesell (1985) 76). No objects are mentioned as being associated with this structure. Nearby was a sacrificial ditch containing ashes and bones and some votive objects.

An altar of this type also ocurred at Karphi in the so-called Temple (a). This seems to have been a public shrine and was open to the air. The altar itself was situated at the northern end of what appears to have been an open court. It was constructed from stones and measured less that 1m² (Pendlebury (1937-38) 75). Again no finds are reported as being directly associated with this structure, but its appearance, position and construction make it reasonable to assume that it was an altar. At the south end of the same court was a bench which also seems to have performed the function of an altar and it was on this feature that the large cult statues were displayed, possibly implying that this was not one of the functions of the masonry altar at the opposite end of the same shrine.

Conclusions

Altogether there are only a possible seven examples of this type of altar from the sites used in the sample. There are other less certain examples which cannot be included for lack of evidence, and so the overall number is fairly small. Those which have been identified come from all the possible categories of site, and always only a small proportion of each.

There is perhaps a slight noticeable concentration in cave sites, where naturally occurring blocks have also been included in this category, with a probable two examples in the neopalatial period out of seven sites from that period, and several other possible ones not included finally because of problems of identification and dating. Taking all the accepted and possible instances together, an altar of this type, including the natural formations, does seem to be a fairly significatnt feature of the worship in caves.

Also, as noted above, they may also be associated with open courts in settlements, though there is usually very little evidence to prove their identification or explain their precise functions in these areas which are not themselves areas of exclusively religious use.

The free-standing, masonry (and natural block-

form) altar is therefore not confined to any one type of site and in fact examples come from all site types. Nor does it appear to have been more popular in any particular period, though none have been found in the prepalatial period.

Examples have been found in both indoor and outdoor contexts, in approximately equal numbers. It is perhaps significant that of the three certain examples from settlement sites, shrines which are predominantly indoor, two came from open-air situations, as well as those mentioned but not included for lack of conclusive evidence. The iconographic evidence also tends to confirm this picture, especially the fragment of a stone rhyton carved with a relief scene depicting men in front of a masonry stucture, not apparently a building, which is topped by a pair of horns of consecration (Evans (1928) 614, Fig.386; Nilsson (1950) 120 and Fig.35; Warren (1969) 85,175), though the scene does appear to be taking place in a rural rather than settlement setting. The large centrally placed masonry structure on the Peak Sanctuary rhyton from Zakros would also seem to be an altar of this type (Shaw (1978) 436, Fig.9) as indeed the one behind it at the bottom of the steps, again topped by horns of consecration.

It can perhaps be conjectured that this particular

form of altar was associated with particular ritual acts for which its shape and size were suited, possibly for sacrifice as shown by the example from Archanes. However the evidence is not entirely consistent, many scenes of bull sacrifice show it taking place on a table-like feature, as for instance on the Haghia Triadha sarcophagus (Long (1974) 61-62; Sakellarakis (1968) and (1970) 175f; Marinatos, N. (1986) 15). Some evidence of animal sacrifice has been found in association with altars of this type at Archanes in the protopalatial period (though the victim here was in fact human); Mallia (k), Psychro, Skoteino and in the vicinity of the altar on Juktas in the neopalatial period and again in the vicinity of the altar at Haghia Triadha (c), indeed the only example of this type of altar identified which had no such associated evidence is that at Karphi (a). In the case of Haghia Triadha (c) the material from the sacrifices was confined to a sacrificial ditch, in all the others the deposits formed by such practices were spread over a wider area and seem to have had no related structures. As Marinatos (Marinatos, N. (1986) 15) however has pointed out, it is unlikely, in the majority of cases at least, that the sacrificial act took place on these altars, but rather they were where the results of the sacrifices were offered and seen.

The presence of this type of altar in open areas

could signify that this form was adopted for ceremonies in shrines which were attended by large numbers of people, but again the evidence is not consistent since others were found inside shrines. One fact which must be significant for the associations of this type of structure is that although it is a built feature (though in caves this is not always so), it occurs more often than any other built structure in the natural sanctuaries. In fact it is one of the few architectural features which occurs in such shrines at all, especially caves where on the whole very little building activity went on. This may be partly accounted for by the fact, as mentioned above, that this structure is not a feature of domestic architecture, where it would serve no practical function. However it is important even so that this form of altar was chosen for these nature sanctuaries and may reflect the type of ceremonies which were associated with it, in many cases sacrifices. As this feature is not an adaptation of domestic architecture it therefore has definite and deliberate connotations of choice intention and religious associations. However, as has been noted, it has been found in only a small proportion of sites, with possibly a slightly greater concentration in caves, but with no marked special relation to any particular type of site or greater use in any one period.

Discussion of the overall use and distribution of structures and equipment designated as altars will be reserved until all the different types have been individually considered.

<u>Bench/ledge</u>

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes
Neopalatial I	settlement:	Knossos (i)
		Mallia (d)
		Mallia (e)
		Mallia (g)
		Mallia (h)
	rural:	Kato Syme
	peak:	Juktas
		Kophinas
		Petsophas
Neopalatial II	settlement:	Knossos (j)
		Knossos (k)
		Knossos (l)
	peak:	Juktas
Postpalatial	settlement:	Karphi (c)
		Karphi (g)
		Knossos (p)
	peak:	Juktas

Bench/ledge

This category includes those benches which appear not to have any function directly related to that of the bench-altar, though some may already have been briefly mentioned in that place. The distinctions which can be made between the two categories, based on functional criteria, as the two are physically similar if not identical, must be at times blurred. The reasons for accepting some as altars were given in the appropriate places, but the categories must still overlap to some extent. The possible uncertainty arises only in cases where a bench or ledge is situated in a level 1 shrine room, since by definition a fixed altar cannot occur in a room other than a shrine room proper.

Twenty-two examples of this feature were found in the sites in the sample, of which 15 occurred in settlement sites, 5 came from peak sanctuaries (this includes continued use at one site which accounts for 3 site units), and 2 rural sites. Overall there is a long history of the use of this feature in Minoan religion, with examples from all periods, used both as altar and not (see Marinatos (1936) 234; Banti (1941-43) 40-50; Lembessi (1981) 5).

A large majority do come from shrines within settlements, though this category is of course both the most numerous in the sample, and perhaps more likely to contain built architectural features, especially those of a domestic provenance. The use of it is fairly consistent through time, though perhaps most important in the protopalatial period when all three of the primary shrines considered contained this feature. In the postpalatial period the use seems significantly less, as proportionately fewer shrines had benches for non-altar purposes, when conversely the bench-altar was probably most consistently used. Although much fewer, as too are the representatives of these categories of sites themselves, benches used for purposes other than as altar were also a feature of both rural and peak sanctuaries in specific periods. None have been reported from caves, where man-made features and structures are minimal. In both the protopalatial and neopalatial I periods the only primary rural sanctuary in each contained benches. At three of five peak sanctuary sites of the neopalatial I period an example of this feature was reported, though often the precise chronology of structures and buildings at these sites is uncertain. At only one of these sites, Juktas, the bench structure has also accredited use in the neopalatial II and postpalatial periods.

The benches discussed in this section are often very similar to those of the bench-altar category in the manner of their construction, and as with those variations do occur. There are also differences in the precise use they were put to which included the storage of pieces of shrine equipment when they were not in use, having sometimes cupboards and built-in niches to assist this purpose which are dealt with in a separate category. Benches were also probably involved in preparations for ritual and ceremonies, and also for the storage of deposited votive offerings. Another function must have been their usual, practical one as seats. These would be for the worshippers and attendants at rituals, though in many instances the benches, and rooms they are situated in, are so small that only a few would have been able to be present. Accurately identifying which of these functions any particular bench was used for is often very difficult, if not impossible where an insufficient number of associated objects is found. Where some indications of intended function do exist these will be mentioned. A single shrine or subsidiary room may contain several benches, each possibly intended for one of the above different uses of this practical and versatile piece of cult furniture.

Prepalatial

The earliest example of the use of this feature is from a shrine in a settlement site at Myrtos. A bench-altar was identified in the shrine room itself, room 92, and the benches were also found on the north, south and east walls (the west wall of the room was lacking) of room 91, the shrine store (Warren (1972) 84-85). These were roughly made of stones and were not very high, the southern and eastern ones being only one course high. In this store-room 66 vases were recovered from fragments scattered over the floor, which originally must have been stored on the benches as there were so many in such a small area, thus in this sanctuary store-room the benches were a storage feature.

Protopalatial

In the protopalatial period benches were found in the shrine room itself, and the vestibule of the independent sanctuary at Mallia (a). A fairly rough structure was found in the shrine room (Poursat (1966) 532; Effenterre (1980) II, 242) formed of two layers of irregular stones, 0.40m high, the cracks between filled with broken pottery. Nothing was reported to have been found on this structure and there is no evidence to suggest that it was used as an altar. From this

same room came a clay offering table, of the flat rectangular type, and four circular ones on stands. The former seems to have been placed on the floor permanently and had been used in connection with fire from the traces found on it. This, and the other equipment in this shrine room for making offerings, was not physically associated with the bench and in fact were found in other areas of the room thus indications for the precise use of the bench are lacking, though it seems unlikely that it was an altar.

In the vestibule of this shrine was a bench of low slabs to one side of the entrance to the shrine room (Poursat *op.cit.* 518). The only object reported from this room was an animal figurine; such a lack of objects makes storage an unlikely function for the bench and as the shrine room proper was able to be reached only through the vestibule it can perhaps be reasonable surmised that the bench here was used as a seat for worshippers visiting the shrine.

The protopalatial shrine on the west side of the west court at Phaistos (a) also had benches both in the actual shrine room and in several subsidiary rooms. In the shrine room, VIII, benches ran round all the walls except the south (Halbherr (1904) 406; Pernier and Banti (1935) 196). These were made of rocks and clay covered with gypsum slabs and coated with lime

plaster, the whole reaching 0.23 - 0.25m high. The bench on the east wall had at its south end a small cavity in which several vessels were found, providing clear indications of its function and probably of the whole bench as well. Vessels were found on the other benches also and the suggestion must be that they all served a storage function with no evidence at all of their being altars, either from the objects found or remains of any ceremonies taking place on them.

This shrine had four annexe rooms serving different functions connected to it, of these three also contained benches. The passageway between the shrine, VIII, and room IX had benches on each side, room IX itself had benches on the north and west sides and in the south-east corner (Pernier and Banti *op.cit.* 198), varying in height between 0.22 and 0.26m high. A handled cup was found on the north bench in the passageway and objects, including the famous offering basin carved with birds, were found on the floor which may have fallen from the benches. It appears then that these benches also were used to store cult equipment, some of it important, which possibly was temporarily not in use in the actual shrine.

In room VI of the same sanctuary benches of a slightly different form were found. One consisted of a large block of limestone 0.25m high which was

stuccoed. A kind of basin, rectangular in shape made of slabs of limestone was attached to this bench, and two circular hollows were formed in the plaster probably to receive vases with round bottoms (Pernier (1902) 33 and Pernier and Banti *op.cit.* 204-05). Along the west side of the same room another bench was formed of stone and earth covered with three slabs of gypsum and one of schist (*op.cit.*). A terracott jug was found on the east bench but no other objects are specifically mentioned as coming from them. The room may have been either for preparation (Gesell (1985) 120) or again for storage, facilitated by the special arrangements in the benches.

Room V also contained benches, one on the east wall was made of brick, 0.60m high (Pernier and Banti *op.cit.* 204-05). On it was found a pestle used for grinding grain and close by a cavity was formed in the bench which would have been designed to collect the flour. The room and the bench therefore seem to have been intended for the preparation of foodstuffs related to cult activities in the shrine. Two cups were also found on this bench. The remains of another bench carved from the rock was found in another section of the same room which originally ran along the length of the west side.

Another contemporary shrine at Phaistos (b) also

made frequent use of benches as a feature of the architecture, both in the shrine itself and in the subsidiary rooms. Room LV is here taken to be the actual shrine though it is not entirely certain (Gesell (1985) 125 calls it a store-room or cult dining room, however the arrangements and rich variety of offerings could equally well be those of shrine). Benches ran around the walls of this room, varying height from 20-40cm and covered in slabs, though part of those on the east and west sides served also as steps for access to other areas and levels.

Here again various vessels were found on the benches, for instance a marble libation table and a jug were on one. A small depression was carved on the bench in the south-east corner of the room which the excavator suggested was for the insertion of a round-bottomed vessel (Levi (1976) 97-98) as in the above-mentioned example also from Phaistos. Though a stone libation table was found on one of the benches there is no other unequivocal evidence that these structures were regarded as anything other than supports for equipment.

Room LIII of the same shrine area, possibly the ante-room, had benches on both the south wall and on the adjacent part of the east wall, as far as the doorway (Levi *op.cit.* 76-7). These were stuccoed and

covered on top with gypsum slabs. The room contained a variety of objects though none were reported as being on the benches and so it is possible but not certain that they were used for the storage of these objects.

A contemporary rural sanctuary, Archanes-Anemospilia, also contained benches which were used in a subsidiary role. The benches in the east, central and, less probably, the west rooms have already been mentioned in connection with their possible use as altars. The vestibule which ran across the font of the three rooms also had a low bench stucture between the central and eastern entrances. It was formed of four rectangular limestone slabs and its storage function was demonstrated by the fact that vessels wee discovered on it (Sakellarakis (1979) 358).

The benches discussed from these protopalatial shrines give a very good idea of the variety of functions, other than as altar, which this type of structure performed. Its major role seems to have been to provide storage space for cult equipment, both for those pieces not in use in the shrine at that moment and for accessories used for activities related to cult practice. There is also evidence, from room V in Phaistos (a), that benches were used for the preparation of foodstuffs perhaps offered or eaten in the rituals of the shrine. At Mallia (a) is a

possible example of a bench used as seating for people waiting at the sanctuary. All these functions, as also the bench itself, have counterparts in non-religious settings.

Neopalatial I

Benches performed a similar range of functions in neopalatial shrines also. At Knossos (i) the Cult Room Basement, which seems to have been a subsidiary room of the main shrine above, now lost, contained a probable bench in the form of a finely worked limestone block against the east wall (Warren (1981) 80). A group of stone tools was found to the north or just under this block. Near the centre of the same room was another stone structure placed diagonally making its function as a roof support seem unlikely. The excavator suggested that it was some form of bench or table, but no objects were found in association with it to confirm this.

At Mallia in this period benches were found in rooms of the shrine in quartier VI (d) (rooms 8 and (); in the ante-room VII 3 in front of the pillar crypt (e); and in the room with the large stone kernos XVI 1 (g) (Chapouthier (1928a) 24-26,27; (1928b) 295; Chapouthier and Joly (1936) 15; Pelon (1980) 134,162,134). In the last two cases the benches, from

their position within their respective rooms would seem to have been seats for worshippers, in the first mentioned there are no indications of what purpose the benches served.

A bench was also situated in a level 1 shrine room of XVIII (h) at Mallia in this period. This bench ran along the south wall of the room and was c.0.26m high (Chapouthier (1962) 9; Pelon *op.cit.* 216-17; Effenterre (1980) 446). It was quite close to the door of the shrine and this position, along with the fact that no objects were reported to have been associated with and indeed most of the objects found in the shrine room were gathered on the other side, lend strength to its interpretations as a seat. Amongst the objects was an altar of a different type and while there is nothing to exclude the possibility of two types of altar being situated in the same shrine, as for instance Karphi (a), their relative positions and the cult equipment make it extremely unlikely that the bench was also an altar.

It is in this period that more examples of this structure come from categories of site other than settlement: one rural sanctuary and three peak sanctuaries. This can be seen in relation to the first appearance of buildings, more or less elaborate, at peak sanctuaries in this period (Peatfield (1983)

277; Rutkowski (1986) 76-79), which seem on the whole to have been for subsidiary functions while the main acts of worship continued o be hypaethral.

At the rural sanctuary of Kato Syme a building has been excavated comprising probably fifteen rooms (Lembessi (1983) 87) dating to the MMIII/LMI period. It is not certain but this building may have played a supporting role only in the ritual activity of the shrine (Lembessi (1981a) 17), such as the storage of cult equipment while it was not being used in the outdoor ceremonies. In one of these rooms, room 6, which was also one of the largest in the building, a low plastered bench ran round the walls. The contents of this room included six stone tables of offering, two of which were actually found on the bench (Lembessi (1973) 194; (1977) 405,406; (1981) 17).

The buildings found at peak sanctuaries at this period may have had a similar role, that is for the storage and protection of equipment and offerings, and possibly preparation. This is what has been suggested for instance for the building at Juktas (Karetsou (1981) 147), though Rutkowski ((1986) 79) believes the rooms were used for worship and therefore constitute the 'shrine proper'. However in this period especially the centre of worship of the shrine seems to have been the altar and chasm, and the building may

well have had an auxiliary role of some sort. The bench was connected with this wing of rooms but not inside, in this case it ran along the length of the face of the rooms outside (Karetsou (1976) 412-13; (1979) 280 and (1980) 341,343). It was formed by 'the junction of the external wall of the rooms with its larger and wider foundation' (Karetsou (1981) 145) and seems to have been in use in the neopalatial II (Karetsou (1979) 280) and also LMIII A and B periods (Karetsou (1981) 145). The excavator discounts its use as a seat for worshippers due to the abundance of objects found below it, and identifies it instead as the place where worshippers deposited their offerings (Karetsou (1980) 343 and (1981) 145).

In this connection may be considered the well-known fragment from a relief vessel, showing a ritual scene taking place at a peak sanctuary where an adorant is placing his offering in front of a shrine building, in the same position therefore as the bench at Juktas (Alexiou (1959) 346-52; Karetsou (1980) 343). This does raise one question however, which so far does not seem capable of being answered, and that is why these particular offerings were deposited here in this manner when so many others were offered in the course of ceremonies involving fires and deposition in cracks especially the large chasm at the site? One possibility, though there is no way of being certain, is

that the votives were first offered here and collected over a period until the great, perhaps infrequent, ceremony in which the fires were lit and the objects consumed and deposited. If this were the case the bench itself would in some ways perform the functions of an altar, as the place whee offerings were made and displayed, but this is all very conjectural.

Other peak sanctuaries at this time also had built structures of one sort or another, but at only two so far are the remains at all sufficiently well-preserved for benches to be recognised. At Kophinas the structure has been identified only as a rough enclosure rather than a roofed building (Davaras (1961/62) 287), along the north side of which was a low bench (*op.cit.* 288).

At Petsophas an LMI building contained a bench which ran along two walls (Myres (1902-03) 359; Platon (1951) 120). In neither of these cases is there clear evidence of the function of the benches, or indeed of the buildings in which they were found, though they too may have played a subsidiary role. One very important object was found in the northwest area of the building at Petsophas: the remarkable plaster horns of consecration, described later, which was perhaps stored in this building.

Neopalatial II

In this period all three settlement sites in the sample contained this feature. Benches were found in two rooms of the Central Palace Sanctuary, Knossos (j): in the Room of the Column Bases and the West Pillar Crypt (Evans (1899-1900) 28; Rutkowski (1986) 29). In the former the bench was made of gypsum and ran along the north wall, but of the few objects published from here none seem to have been associated with it. No objects at all were published from the West Pillar Crypt to suggest a function for the bench there, in fact in both these rooms the role of the bench is unknown.

The Throne Room Complex at Knossos (k) also contained benches in two rooms. For those in the ante-chamber on either side of the postulated wooden throne the most likely explanation would be as seats for people attending ceremonies (Evans (1899-1900) 36 and (1935) 904-05). The gypsum benches on either side of the throne, on an adjacent wall and along the parapet of the lustral basin facing the throne in the Throne Room itself may also have been seats, perhaps for those participating in the rituals though a display and storage function is equally possible. There is some evidence to support such a role for the bench along the parapet of the basin as a collection of

faience plaques and a deposit of carbonized wood were found immediately in front of it (Evans (1899-1900) 37,41-42 and (1935) 907, 940-41). These may have been the remains of an inlaid wooden box which originally stood on the bench (Evans (1935) *loc.cit.*, though (1899-1900) *loc.cit.* Evans suggested the relics derived from ceiling beams and their decoration), and the bench would therefore have acted in a display capacity. That is was a form of altar seems unlikely from the general character and lay-out of the room, but cannot be entirely discounted. The third shrine at Knossos in this period containing benches was the sanctuary of the High Priest's House (1). In the outermost section of the three into which the sanctuary was divided the remains of two benches were excavated along the walls and here *too*, though there is no direct evidence, a function as seats would seem a reasonable assumption to make (Evans (1935) 207).

So in all three of these neopalatial II settlement shrines the most reasonable explanation of the presence of benches seems to be that they were used as seats for worshippers and officiants at the ceremonies. However it must be said that in all the examples no clear evidence exists to prove this either way and the identification as seats rests mostly on their relative positions within the shrines, so that the possibility remains that some at least were used for storage and

display.

The bench mentioned above at the peak sanctuary on Juktas seems to have continued in use in this period, presumably for a similar purpose (Karetsou (1979) 280 and (1981) 145).

Postpalatial

Three settlement sites of the postpalatial period from the sample of shrines contained benches (however Gesell (1985) 94, states that a bench appears clearly on the excavation photograph and plan of the southwest pillar crypt of the Little Palace, Knossos, though it is not mentioned in any of the reports or discussions and is not included here).

At Karphi, in the so-called Priest's House room 58 (c) has been recognised as a sanctuary. In the northeast corner of this room a piece of naturally projecting rock may have served as a bench or support of some kind, though the objects in this room were found mostly in the southeast corner (Pendlebury (1937-38) 85).

Also at Karphi room 85 (g) seems to have been a small shrine with a subsidiary room, 87. In room 85 was a small ledge on which, it was suggested, the cult equipment including several small figurines, originally

stood (Pendlebury *op.cit.* 90-91), though this is not certain. In room 87 where animal but no human figurines were found, a low rock table stood at the south end, though its exact nature is unknown, and may be a platform rather than a bench.

Both these rock features have been included in this category of bench/ledge, though they differ somewhat from the majority of other examples. They do however seem to fall within the same range of practical functions and may be taken as equivalent to the built structures.

In the Spring Chamber of the Caravanserai at Knossos (p) were benches on either side of the water basin, which were presumably still in use in this period when the building was a shrine. Again they may have been seats but it is impossible to be certain (Evans (1928) 127).

The bench outside the wing of rooms at the shrine on Juktas was also still in use up to LMIII A-B to judge from the finds (Karetsou (1981) 145).

Conclusions

It is hard to reach any firm conclusions about the use and associations of this particular feature and on the whole its use seems to have been adapted to any

special needs in whatever shrine, and room within it, where it was found. That it occurs mostly in settlement site shrines is not really surprising as it is also a characteristic element of domestic architecture. The bench was therefore a practical feature, facilitating and assisting in a variety of activities related to the cult, including sometimes, as has been seen in a separate category, the role of altar.

Dais/platform

Prepalatial	-	
Protopalatial	rural:	Kato Syme
Neopalatial I	-	
Neoplatial II	settlement:	Knossos (l) ?
Postpalatial	settlement:	Karphi (g)
		Knossos (m)

Dais/platform

This is a feature which in certain forms may overlap with the benches of the previous category, but is taken to be those structures which are low and flat, on the whole wider and broader than tall, and designed to elevate a whole section of the shrine area. Very few have been recognised at sites in the sample and numerically it is not a very significant feature, the majority coming from settlement sites. Equivalent features may have been provided in the natural sanctuaries by elements of the topography and physical conditions, which are no longer discernible from their surroundings.

Neopalatial I

The earliest possible example of this type of feature is also quite remarkable and not closely comparable with the others discussed here. This comes from the rural sanctuary of Kato Syme and this platform is not only outdoors in contrast to all the others, it is also on a monumental scale, far larger than the rest. It is in itself a very unusual structure with no real parallels (Lembessi (1976) 405, compares it with the building found south of the Royal Road,

Knossos), dating to the MMIII-LMI phase of use of the shrine. Partly covered by later buildings excavation has revealed it as an open-air platform, measuring 12.6 x 7m, with walls of large blocks, very finely worked (Lembessi (1974) 223-4, (1975) 323-4, (1976) 405-6, (1981) 17, (1984) 101, (1985) 74-75; Catling (1986) 89). The interior was formed of smaller stones but damage in this area was so great that no floor was found, though a mixed layer of sacrifices with ceramics and a few offerings were uncovered (Lembessi) 1975) 324).

The platform stands inside a peribolos and between the two is a thick layer of sacrifices containing many objects and vessels. This arrangement of platform and peribolos itself in turn is surrounded by two legs of a processional road, finely paved and provided with an elaborate drainage system (Lembessi (1984) 100-101; Catling *loc.cit.*). A continuation into later times of open-air cult practices involving fire and offerings is demonstrated by the presence in the same area of an archaic hearth (Lembessi (1985) 75).

The monumental platform at Kato Syme is without parallel so far in the record of Minoan religion so it is hard to draw any firm conclusions regarding its precise role and associations. It would seem that it was intended to form an elevated and special area of

cult, though from the evidence of the results of the sacrifices the ritual practices taking place on it did not differ substantially, if at all, from those taking place in other open-air areas of the shrine.

Another, very different, platform also comes from this period, from a site not included in the sample. At Archanes-Tourkogeitonia a platform was discovered which was occupied by a large masonry altar (Sakellarakis (1983) 90-91; Catling (1985) 58-59). It was situated in an open area against the wall of the building. Although low it is clear the platform here was intended to elevate the altar, a purpose which the platform fulfilled in other shrines also.

Postpalatial

The above two examples are both situated in open areas, one from a rural sanctuary and one from a settlement site, the remainder are located both inside buildings and from settlement shrines.

At Karphi a possible example of a related type of feature exists in room 87 (g), an annexe to a shrine, room 85, though this could also be taken as a form of bench, it is difficult to be certain from the short description, and has already been mentioned in that category. It was described in the original report (Pendlebury (1937-38) 90) as a rock table, with no

details as to its precise form or function. In this context it is also perhaps worth mentioning a feature in room 64, which if a suggested door between rooms 85 and 87 did not exist would have been the only entrance to this group of rooms. In the northwest corner of this room was what was described as a large regular dais of rock (*loc.cit.*), again with no indication of function, or any related objects apparently.

Both the above are rather uncertain examples of this type of feature, a much clearer one comes from the Shrine of the Double Axes at Knossos (m). The room was in effect divided into three sections by the use of different levels of the floor. After an initial area with various vessels standing on the floor, there was a rise in level to a dais across the width of the room. This was plastered and strewn with water-worn pebbles and on it stood more vessels and in the centre, with its feet fixed to the dais, a circular tripod table (Evans (1901-02) 96 and (1928) 336). The dais was immediately in front of the bench-altar, discussed above, which in turn occupied the back wall of the shrine and carried the most important objects of the sanctuary.

Conclusions

Very few clear examples of such features have been

found in the sanctuaries in the sample and there is not a great degree of conformity amongst them. That at Kato Syme is monumental and in the open air, it is uncertain what the reasons were for this chosen form and size. In domestic shrines, where the use of such a feature is perhaps more recognisable it seems to have been an element of the spatial organization of the sanctuary and served to elevate a section of the room on which various types of important cult equipment might be placed.

The innermost section of the sanctuary of the High Priest's House, Knossos (1), could also be regarded as a comparable feature as it is raised above the level of the other two sections of the shrine (Evans (1935) 209ff.) and it was here that Evans restored the gypsum altar and double axe stand. However this arrangement seems to owe more to the topography of the area which dictates a stepped plan though this does mean that the innermost, most sacred, part is effectively a separate platform, as Alexiou also called it ((1972) 429, n.73).

		Niche/compartment
Prepalatial	-	
Protopalatial	settlement:	Phaistos (a)
		Phaistos (b)
	rural:	Archanes
Neopalatial I	settlement:	Mallia (d)
		Mallia (i)
		Zakros (a)
Neopalatial II	settlement:	Knossos (k)
Postpalatial	settlement:	Karphi (a)
		Katsambas
		Knossos (p)

Niche/compartment

As with many of the structural features the examples of this category occur in mostly settlement sites, due to a large extent no doubt to the transference and adaptation of features already characteristic of the surrounding domestic architecture. This feature has also been recognised in two rural sanctuaries, from different period, and possibly one peak sanctuary. The overall number of examples is comparatively small and these occur fairly consistently through the chronological bands, though none have come from the prepalatial period.

Protopalatial

Of the three primary shrines in this period niches or compartments were found in two, both in the palace of Phaistos. In the level 1 shrine room VIII of the sanctuary on the western side of the West Court (a) a small cavity was incorporated into the southern end of the bench which ran along the east wall. The function of this cupboard was demonstrated by the fact that objects were discovered still in storage inside it including a bowl which in turn contained a sealing (Halbherr (1904) 405; Pernier and Banti (1935) 196;

Nilsson (1950) 96).

A sort of niche was also present in the shrine room of the other protopalatial sanctuary in the sample at Phaistos (b), though this time not as part of a bench. It was built into the wall of room LV, about 1.35m from the floor and measured 0.50 x 0.35m, and approximately 0.30m deep (Levi (1976) 77,97,99) in the second phase of use of the shrine. Inside this cupboard, again apparently in storage, were four stone vases, including two libation tables, and a clay brazier (*op.cit.* 99).

Both of the above compartments, presumed to be for storage, were located in the level 1 shrine room of their respective sanctuaries.

At the rural sanctuary of Archanes-Anemospilia corresponding features were found in the vestibule of the shrine which were of slightly different construction. Between the entrances to the west and central rooms a sort of box compartment was formed of upright rectangular stone slabs, fitted to the south wall of the vestibule and intended for the storage of vessels and other objects (Sakellarakis (1979) 355-57). A second rectangular stone construction was fitted to the wall between the central and eastern rooms (*op.cit.* 358). Inside this one was a carved stone basin, demonstrating its function as a storage space.

Neopalatial I

Of eighteen primary settlement site shrines in this period only three made use of this feature, of which two were at Mallia.

In room VI 2 of the shrine of quartier VI (d) was a sort of cupboard or niche (Chapouthier and Charbonneaux (1928) 22; Pelon (1980) 173) which Pelon (*loc.cit.*) believed was for the storage of objects such as those which were found in the room, that is the stone axe and weapons.

Outside the actual palace in House E a lustral basin, room IX, was excavated. In the west wall of the basin were two niches, one was 0.80m from the ground and covered in red stucco, the other, 1.50m from the ground, was covered with white stucco (Bequignon (1931) 514-15; Deshayes and Dessene (1959) 102). Such features within a lustral basin are rare (Alexiou (1972) 431-32) and were probably used for a storage/display function. In this case nothing was found in either niche but it is possible that they originally contained the stone libation table and lamp which were found hee (Deshayes and Dessene *loc.cit.* ; Gesell (1985) 108). The lamp may have been placed here for illumination, as is also probable for the

niches in the Spring Chamber, Knossos, mentioned later.

In the sanctuary complex west of the Central Court at Zakros (a) compartments, niches and boxes were employed in several rooms for the storage of a variety of objects. For instance, in the Archive Room, three niches were built along the south wall, formed of mud-brick partitions (Platon (1963) 176, (1964) 144 and (1971) 148). Inside the niches there may have been wooden shelves supporting the boxes containing the clay tablets, their presence inferred from the quantities of carbonised material.

Similar partitions divided up the interior of the shrine Treasury, room XXII, into compartments for the storage of the many precious objects kept there (Platon (1963) 179, (1964) 144 and (1971) 133). Originally eight of these had existed in the room, made of brick coated with clay, probably not more than 1m high.

At one peak sanctuary in this period a feature described as a compartment was excavated. This was in room III of the wing of rooms of the shrine on Juktas (Karetsou (1976) 414), but the precise nature and size of this compartment are not yet clear from the preliminary reports, though it was stated that nothing was found in it to indicate its use.

Neopalatial II

The Throne Room complex at Knossos, (k), is the only one of the three shrines belonging to this period which contained this feature. In the throne room itself in the northeast corner above a bench was a small stone lined cupboard or niche (Evans (1899-1900) 41 and (1935) 934). It contained small pieces of decorative inlays and precious materials, which Evans believed had actually fallen from the floor above so it is not known what it originally contained. The so-called Inner Sanctuary leading off the Throne Room contained a niche fitted with a stone shelf. This particular arrangement is hard to categorise and in some ways it overlaps with the feature here called a ledge which was treated with benches earlier, however as the space beneath the shelf appears to have been open and the whole feature is rather like a compartment it is included here.

On the shelf was found some gold foil, and the silver core of a bracelet came from nearby, the shelf itself was covered with a layer of burnt wood (Evans 1899-1900) 40-41 and (1935) 920). This niche may have contained precious and important cult objects, Evans suggested that a cult statue would have been displayed here, making it in fact a kind of altar. However

there is no direct evidence to confirm this supposition and the room may have had only a subsidiary function.

Postpalatial

Three settlement site shrines, of the possible fifteen primary shrines of this period, contained this feature, though the precise form varied in each case.

In the 'Temple' at Karphi, (a), a small square compartment existed in the southwest corner of one of the annexes of the main shrine room. The compartment was used to store vessels and several were reported from here (Pendlebury (1937-38) 75). A rather different example occurred at Katsabas where a small domestic sanctuary was excavated containing a possible altar, already discussed. The altar consisted of slabs on stone supports, beneath which was formed a compartment where the cult equipment of the shrine was stored: an incense burner, two cups and a pyxis (Alexiou (1955) 313).

Finally, in the Spring Chamber at Knossos, (p), a niche was located in the back wall of the chamber (Gesell (1985) 101 gives its measurements as 0.25 x 0.27 x 0.42m). Its use is not certain but may have been intended to contain a lamp (Evans (1928) 127).

Conclusion

The majority of examples of this feature have come from shrines in settlement sites, though not a very great proportion of them, and is also found in rural sanctuaries and has possibly been recognised in one peak sanctuary. It is of course possible that niches were originally used in other sanctuaries of this last type, which however are in a very bad state of preservation compared to Juktas.

The evidence available for the function of those examples studied points on the whole to storage of equipment used in the cult, or lamps for illuminating cult rooms. In some cases this equipment was actually *in situ*, in others the function was inferred from their position. Although no such situations exist it has been suggested also that another function for these niches was the display of cult images. This explanation would be feasible only for those which were positioned in a prominent and easily visible place and in the shrine room itself. This is not impossible but so far no figurines have been found in or near one of these features, and such niches and compartments as have been found in recognised shrine rooms had contents still in place which demonstrated their storage function.

Some of the functions performed by the niches could, and were, also performed by benches in the same site types and in the same shrines. Neither however have been discovered in cave sanctuaries, where built features are very scarce, but it is possible that natural elements were used for the same purposes, display and storage, were not as important in the cult activity in such shrines. The nature of the conditions in cave sanctuaries would make it very difficult to distinguish such features and the disturbance which has usually taken place would also hinder recognition of assemblages deliberately placed for storage or display, so that it is impossible to reach any firm conclusions on this matter. It also highlights some of the problems which occur when comparing such features, common enough in built structures, but unlikely to be found in caves where very little human interference went on.

Prepalatial	-	
Protopalatial	peak:	Juktas
		Maza
		Petsophas
		Traostalos
		Vrysinas
		Zou
	rural:	Piskokephalo
	cave:	Skoteino ?
Neopalatial I	settlement:	Knossos (b) ?
		Mallia (k)
	peak:	Juktas
		Petsophas
		Kophinas
	rural:	Kato Syme
		Rousses
	cave:	Psychro
		Skoteino
Neopalatial II	-	
Postpalatial	peak:	Juktas
	rural:	Kato Syme
	cave:	Psychro
		Skoteino

Hearth

Prepalatial	settlement:	Chamaizi
Protopalatial	-	
Neopalatial I	settlement:	Knossos (i) ?
Neopalatial II	settlement:	Knossos (j)
Postpalatial	settlement:	Kannia
		Kephala Chondu ?

'Sacrificial' ditch/pit

Prepalatial	-	
Protopalatial	settlement:	Phaistos (a)
	peak:	Juktas
Neopalatial I	settlement:	Mallia (c)
		Mallia (j)
	peak:	Juktas
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)

Bonfire, hearth, 'sacrificial' ditch or pit

These are three related categories united by the use of fire as an inherent part of the ceremonies surrounding them, although there are areas of overlap between them they display a wide variety of physical characteristics which in turn may reflect differences in function or the stage of the ceremonial act involved. The three are therefore discussed separately to begin with and then compared. Also considered are the practical factors which necessarily must have influenced the scale and form of apparatus suitable for the different environments involved.

Bonfire

This category includes those sites where evidence has been excavated of large-scale, deliberate burning, with no apparent or lasting associated structures and spread over a large area. Although this means the features listed are in fact non-architectural each is none the less a prominent and integral aspect of the site.

The evidence consists of sometimes impressive layers of ash and burnt earth, which may cover much of the site and at times be very thick. These layers are

usually found mixed with various remains and objects. Such deposits are a feature found in all types of sanctuary, though only once, and with some uncertainty, in a settlement site. They are particularly associated with peak sanctuaries and the majority of the studied examples, notably in the protopalatial period when this type of sanctuary was perhaps most popular, produced evidence of extensive fires.

Similar deposits have come also from rural sanctuaries, one of which was slightly unusual in being inside a building, though this is not unique. Cave sanctuaries also have been found to contain evidence of this type of activity.

The dating of such deposits at many sites is very difficult and must be treated with caution. Often it is probable that the use of fire in ceremonies in these sanctuaries was not confined to only one period, and so the evidence will be noted in each if a continued use seems warranted.

Protopalatial

A total of seven peak sanctuaries, of a possible 9 in the sample, in this period have produced evidence of fire as a significant feature at the site.

Juktas is of course one of the most important peak

sanctuaries with evidence of long use and extensive deposits resulting from fires were excavated here. Evans discovered what he called a grey ash stratum belonging to MMI and MMII ((1921) 157,158). Recent excavations have both confirmed this and revealed them to be more widespread and containing an abundance of remains and objects, together with more elaborate structures, mentioned elsewhere, belonging to the Old Palace ash layer (Karetsou (1974) 233,234, (1975) 342, (1976) 417, (1977) 420, (1978) 248, 256-58, (1980) 341-42, (1981) 146, (1984) 111, (1985) 84). In the pyre layers dating to this period, as well as later, were the bones of different animals in large quantities, mainly sheep but also pigs and ox and also some birds. Shells of different species, mostly marine, were also found and the excavator believes these to have been votive in nature (*op.cit.* (1978) 258).

At Maza also signs of fire were reported (Platon (1951) 103-04,114). The crevices at this site were filled with small amounts of earth mixed with ashes together with votive objects and bones. The excavator suggested that these resulted from ceremonies involving the lighting of fires, into which the figurines were thrown, breaking them in the process, followed by the dispersal of the ashes and fragments among the cracks and crevices in the rock in the area (*op.cit.* 114 for Maza, and 103,120,142,151).

Black earth, presumed to be the result of bonfires, is reported from Modhi , though with few additional details (Faure (1960) 38).

A thick layer (17-20cms) of nearly black earth, full of ashes and charcoal, was found covering much of the site of the peak sanctuary of Petsophas (Myres (1902-03) 356; Platon (1951) 120). This layer also contained figurines and other votive objects, though no animal bones are specifically reported as coming from the site, either at the time of the original excavation, or from the later re-excavation (Davaras (1972a), (1972b), (1980), (1981).

The remains of bonfires come from the site of Traostalos also (Faure (1963) 495; Davaras (1963) 405 and (1967) 102). The many human and animal figurines and other objects showed strong signs of having passed through fire. Again no specific mention is made of any animal bones though Faure (*loc.cit.*) reports finding shells.

Vrysinas also yielded evidence of pyres in the form of black ashy earth, containing objects (Faure (1963) 506), and the remains of what must have been a large pyre were found at Zou near Siteia (Faure (1967) 119; Davaras (1972) 651).

The use of fire, apparently often on a large scale, was obviously a very important element in the ritual activity taking place in the peak sanctuaries in this period (Alexiou (1969) 80; Nilsson (1950) 75; Rutkowski (1986) 91); at only two of the nine sites in the sample were no traces of fire discovered, though the sites were much disturbed and had suffered from their exposed position. Of the seven where fire remains were reported, three, Juktas, Maza and Vrysinas, had animal remains amongst the fire deposits.

In the same period one rural sanctuary, Piskokephalo, also produced evidence of extensive fire in the form of black ash layers (Platon (1952) 631). These were found only in certain layers and places and the excavator was not certain that they resulted from ceremonies involving fires comparable to those suggested for peak sanctuaries, but it is difficult to tell as the site had been much disturbed over a long period.

Although no caves can with certainty be identified as having fire deposits dating to this period there is a possibility, especially at Skoteino where pottery was found from MM times on (Faure (1964) 164; Davaras (1963) 312 and (1969) 622). However the chronology is very difficult and there is little, if any evidence to date these deposits to the protopalatial period, so

although the possibility of such must be mentioned here the material will be more fully discussed, with references, in the next period. At Kamares, a cave mostly in use in the protopalatial period, animal remains were reported (Taramelli (1901) 447,448; Faure (1964) 179,181; Tyree (1974) 39, 68), Taramelli (*op.cit.* 447) mentions black mud and Dawkins (1912-13) 11) describes finding powdery black earth, though in neither case do the excavators mention any connection with burning (Rutkowski (1986) 55, also mentions black earth without any reference to burning). So here also the evidence for the use of fire is ambiguous, and while the possibility remains, there is insufficient evidence to be certain.

Neopalatial I

Only two settlement sites from any period, from the sample of sites used, contain what may be a sacrificial layer with no containing structures or ditches associated, though in both the situation is not completely straightforward to interpret.

The first such deposit was found in connection with the Temple Repositories at Knossos (b). In the western Repository Evans discovered horn cores of deer mixed with a deposit described as greasy or fatty, possibly deriving from animal sacrifice (Evans (1902-

03) 41 and (1921) 468,496-7), this layer also contained a series of libation tables. Burnt corn was also reported from the same Repository (*loc.cit.*).

The two cists contain what appears to be the contents of a sanctuary, buried perhaps after the destruction of the shrine building, though this is not certain (Gesell (1985) 26, suggests the contents of the shrine were ritually buried following the earthquake of MMIII). The remains of the sacrifices found with the objects may therefore have resulted from rituals taking place as part of the dedicatory ceremonies connected with a hearth or ditch elsewhere. As the whole has been removed from its original context and can now only be described as a modified sacificial layer, though it must be significant that the sacrificial remains were deliberately buried with the sacred objects.

Another sacrificial layer comes from an area on the border of House E at Mallia (k) which was used in many phases, so that the exact chonology and plans are difficult to ascertain. Room II2 was probably a shrine since it contained a libation table, miniature vessels and animal figurines, together with a probable masonry altar. No actual floor could be identified but an occupation layer was recognised in which were mixed ashes, fatty earth, animal bones, carbon and small plain cups (Pelon (1970) 41,45).

This layer seems to cover the room and no directly associated structures are apparent so it cannot be classified either as a sacrificial ditch or a hearth. This particular situation has a parallel with a crypt in the villa at Sklavokambos, not included in the sample. Room 8 there contained conical cups, as did the Mallia shrine and the floor was covered with carbon and black earth in which the cups were inverted (Marinatos (1939-41) 74, 78-79; Platon (1954) 452-53; Gesell (1985) 135; Marinatos,N (1986) 36), animal bones were found here; and again animal sacrifice, or the ritual consumption of such sacrifice is indicated.

In this period evidence resulting from large-scale burning comes from two, possibly three, peak sanctuaries. To this period also dates the evidence of this nature from two cave sanctuaries.

At two of the peak sanctuaries the use of fire constitutes a continuation of practices recorded there in the prèvious period, these are Juktas and Petsophas.

At Petsophas this conclusion is inferred from the discovery of objects belonging to this period (Davaras (1972) 652-53), which are not specifically related to burnt layers but may be so since the original report made clear the existence of a widespread and very noticeable layer of ashes and black earth which were

found in the crevices of the rock over a large area of the site. However, there is no explicit, direct connection made in the recent reports between the neopalatial objects and such ash layers, so only wholly circumstantial evidence is available.

At Kophinas, a peak sanctuary for which the evidence of the deposits points to a use mainly in MMIII (Davaras (1961/62) 287,288; Alexiou (1963) 384; Megaw (1961/2) 24), the use of fire was reported but apparently only in one are of the site.

The votive deposits have been estimated to cover an area on the north and east sides of the peak measuring 80 x 30m (*loc.cit.*). A rough rectangular enclosure was excavated on the east side of the peak, only partly preserved, with a low bench on its north side though it was probably not roofed (Davaras *op.cit.* 288). Within this enclosure was found a layer of black earth, probably consisting of ashes resulting from sacrifices (Davaras *loc.cit.*). This layer is mentioned specifically only in relation to the enclosure/temenos wall and the offerings in this same area were reported as being fewer than was the case for the cracks and crevices elsewhere at the site but included bronze votive blades and abundant ceramics. From the reports then it seems that the fire-related ceremonies and offerings were confined to the area

surrounded by the wall. Outside the enclosure abundant offerings were made but apparently without the use of fire.

At Juktas there is evidence for the continuation of practices involving fire similar to those of the preceding period, demonstrated by abundant offerings and bones found in pyre layers sometimes mixed with those of the protopalatial date (Karetsou (1974) 234, (1977) 419,420, (1978) 236,258, (1980) 341-42, (1984) 113, (1985) 86). Evans earlier had distinguished what he called a stratum of reddish burnt earth containing MMIII sherds, which was confirmed by Karetsou (Evans (1921) 157; Karetsou (1974) 234). The objects mixed in with this layer included human and animal figurines, abundant ceramics and stone offering tables. These last the excavator believed had been deliberately broken before being offered, as Davaras had postulated for ones found at Petsophas (Karetsou (1984) 114; Davaras (1981) 3).

In this period the wing of 5 rooms was constructed between terraces II and III (Karetsou (1976) 418, (1977) 419, (1978) 232, (1979 280,281, (1981) 145 and (1984) 111). Evidence was found for ceremonies involving fires and sacrificed animals inside some at least of these rooms in the form of ash layers with associated objects, and in one case fatty earth.

These remains may be the result of ritual meals (Marinatos,N. (1986) 39) in which case the fires may have been related to a hearth, though no remains of any such structure have been reported.

The main evidence comes from room I, with a similar layer reported also from room II (Karetsou (1975a) 334, (1975b) 177, (1976) 410-11, (1978) 235-36,238). Associated objects included many conical cups as well as horns of goats and bones of small animals and birds, human and animal figurines and smaller objects. This burnt layer therefore is definately associated with the deliberate use of fire, possibly for purposes with a slightly different emphasis or intention than the large pyres lit outside; they certainly must have been on a smaller scale, and may in fact be confined to the eastern half of the rooms (Karetsou (1978) 235-36,239).

A burnt layer was also found in room III (Karetsou (1975) 333-34, (1976) 413-14, (1978) 242) which again contained ashes, mixed with fatty substances and burnt seeds. This deposit was first believed to be evidence of liquid offerings (Karetsou (1975) 334), but later this opinion was revised and it was seen as the result of the destruction of the room, which must have been a store-room (Karetsou (1976) 413-414).

At Rousses evidence comes from inside a building.

In room B of this sanctuary a layer of black ashes was found (Platon (1957a) 146, (1957b) 331, Hood (1957) 18, Daux (1958) 778). This layer seems to have covered the whole room and mixed in with it were animal bones indicating that the layer was the product of, or related to, burnt sacrifices. Also significant in determining the practices associated with the use of fire in this room was the presence of at least 40 handleless conical cups, mostly inverted and frequently stacked together, and nearby were 3 amphoras, which perhaps, as suggested, contained liquid for pouring into the cups for offerings (Platon (1957a) loc.cit.).

Here again there is evidence of the use of fire, with no associated containing structures or concentrated in a small area. There are also indications that the fire was related to sacrifice or ritual consumption of animals, and the presence of conical cups and amphoras suggests also liquid offerings. In these respects parallel can be drawn with the fire layers of rooms I and II at Juktas (above).

At the rural sanctuary of Kato Syme there are extensive pyre deposits indicating a widespread and prolonged use of fire, all of which are hypaethral. The practice of worship in the form of large open-air pyres, with the sacrifice of animals and the deposition

of offerings continued from MMIII until the 6th century B.C. (Lembessi (1975) 324, (1977) 403,407,415, (1981a) 383,392, (1984)). These objects found in the pyre layers included pottery, especially the large cups, orchalices, tubular stands, stone offering tables, some with Linear A inscriptions, as well as the remains of animal sacrifices and pieces of burned wood (Lembessi (1984) 101) ; human figurines in bronze have also been dated to this period (Lembessi (1986) 138).

The nature of these remains therefore indicates the pratice of animal sacrifice and the dedication of many objects as offerings. One interesting aspect of the neopalatial worship involving fires at Kato Syme is that this activity was contained within a peribolos wall (Lembessi (1985) 73-75, Catling (1985/86) 89. The peribolos is itself flanked by two legs of a ceremonial way (Lembessi (1984) 100-101 and (1985) *loc.cit.* ; Catling *loc.cit.*) and inside both of these is the unusual platform structure where much of the cult activity must have taken place (Lembessi (1974) 223-34, (1975) 323-34, (1976) 405-06, (1981b) 17, (1984) 101, (1985) 74-75; Metaxa-Muhly (1984) 124). The area was overlain by later levels but it seems likely that the walls of the platform were visible in the 7th century (Lembessi (1985) 75; Catling (1987) 56), so that the centre of hypaethral worship, and the cult practices

performed, remained the same for many centuries.

There is evidence too for this type of fire feature from two caves in this period, from the sample of sites used. These are Psychro and Skoteino. As mentioned already the dating of such deposits is very problematic and their inclusion in particular periods is often only conjectural.

At Psychro the presence of ashes is mentioned in relation to the large altar of the northwest bay (Hogarth (1899-1900) 98) which is neopalatial. Around it were found about 30 stone offering tables as well as cups, fruitstands and lamps (*loc.cit.*). Animal bones were also found in the layers in this area and the implication is that sacrificial rituals with the offering of the animal on the altar took place in the cave. The animals may not have been actually sacrificed on the altar (Marinatos,N (1986) 39) but there are clear indications of the burning of the sacrifices within the cave (Tyree (1974) 92).

The deposits left by burning in the cave at Skoteino also can be reasonably assigned to this period as this seems to be the time when it was most used; a large amount of the fragments of ceramics as well as the three bronze figurines of worshippers date to LMI. These figurines were found in the layer of black earth and ashes (Davaras (1969) 622; Tyree (1974) 22) so the

dating of this fire deposit seems sure, though disturbance in the cave was great (Nilsson (1950) 198; Davaras (1969) 621,622).

Faure, who had visited the cave on earlier occasions also had noted the existence of ashes ((1956) 96, (1958a) 508, (1958b) 40, (1963) 325 and (1964) 163,164), sometimes associated with particular concretions. It is difficult to assign the ash layers to any one period, but the evidence to support some belonging to this period is quite strong.

The association of particular objects with the ash deposits is also fairly obscure. A large number of sherds were discovered (Faure (1958a) 509, (1958b) 40, (1964) 164; Davaras (1969) 622), which seem mostly to belong to domestic ware of various ages from Minoan to Roman. Few smaller objects were found, due in large part no doubt, to the amount of looting which had been carried out, but these included daggers or knives, bone needles and a bead (Faure (1964) 164-65; Davaras *op.cit.*). Faure (*op.cit.* 165) also recorded finding sea-shells and the bones of small animals of unspecified date but which he associated with the worship of Aphrodite, implying a later date (Faure (1963) 324-25).

No firm conclusions can be drawn as to the type of

ceremonies associated with the fire feature, nor what objects or equipment they involved. Animal sacrifice however does not appear to have been part of these practices. Possibly the contents of the pottery found were offered in the fire, but this can only be speculative.

Postpalatial

All the bonfire features dated to this period are in fact continuations of use at sites already mentioned.

At Juktas however, which was still in use at this period, there is no specific mention of pyre layers or objects belonging to them for this period, though no doubt mixing has occurred and so it is a possibility that some date to the postpalatial. It is to this period that the fragments of Gazi-type figurines belong, being dated to LMIII (Karetsou (1975) 338-40, (1975) 178, (1976) 418) and this may be an indication of the transference of the main cult to a room of the building, perhaps also involving a change in the type of practices associated with the worship.

A pyre layer has been recognised at Kato Syme which clearly dates to LMIII (Lembessi (1972) 198-99). This is found at different parts of the site and is often mixed with other layers of various dates, but has

also been found pure (Lembessi (1972) 198-99, (1973) 192,198, (1974) 224, (1975) 324, (1976) 401-02,406, (1977) 413,415, (1981a) 392, (1981b) 14-15 and (1984) 98-99,101). A very characteristic category of object connected with these mostly LMIII B-C layers are the large, hollow, wheelmade bulls, one of which was especially large at 0.50m high and over 1m long, comparable with those found in the Piazzale dei Sacelli, Haghia Triadha. Also belonging to layers of this period were human and animal figurines in clay and bronze, pottery vessels, stone vessels and various other small objects, together with the remains of animal sacrifices, showing an essential continuity of practices from the preceding period (Lembessi (1981b) 14-15, where she also notes that LMII finds are much sparser and it is uncertain what precise form the cult took at this time, or whether it was temporarily abandoned). Some buildings do date to this period (Lembessi (1973) 193, (1976) 416, (1977) 417, (1985) 73), the Neopalatial building being now in ruins, and their function seems to be more subsidiary than as the site of actual worship.

Both of the caves mentioned in the previous period also show continued use of fire features, though not as extensive as the deposits found at Kato Syme.

At Skoteino, for which the fundamental evidence

has already been set out, the ash layer probably dates also to this period, since the pottery found in it covered a wide range of ages, and although it is impossible to ascribe postpalatial objects definitely to the ash layer it cannot be entirely excluded; Faure ((1956) 96, (1958) 40) did discover a large crater with an octopus design, dating to LMIII.

At Skoteino therefore there may be a continuation of similar practices into the postpalatial age, though there is no more than conjectural evidence to support this. At Psychro the picture is a little clearer, though some problems of dating occur here also.

The reports relating to this cave, especially those of the earlier visitors, are not always clear, and references to ashes and associated remains are hard to date. For instance, Halbherr writing of a visit to the cave with Hazzidakis states that they found a stratum of "black earth formed of charcoal and ashes, mixed with half-burnt bones and horns of oxen, rams and goats..." (Halbherr (1888) 906, (1894) 13-14). He mentions finding objects here dated to between 12th and 7th centuries, so the precise dating of these remains is uncertain. It seems likely that there are in fact several layers of ashes of various ages, as differentiated by Toutain ((1903) 346).

Hogarth who excavated the cave distinguished four stratigraphical levels in the northwest recess of the upper part of the cave (Myres (1899-1900) 97-98; Boardman (1951) 3) and noted several layers of ash mixed with animal bones and sherds. Elsewhere in the upper cave he found strata of black mould mixed with ashes, bones and pottery, as much as 7ft thick in places (*op.cit.* 96), and ash layers were found also in the temenos area which may have been the centre of worship at this period (Myres *op.cit.* 98; Boardman *op.cit.* 3). The amount of these reported ash layers points to a widespread and frequent use of fire in the upper section of this cave sanctuary, dating possibly to the postpalatial period.

There is some support for this interpretation from Evans who also investigated this cave, prior to Hogarth. He too discovered a sacrificial layer in the Upper Grot, containing ash, charcoal and bones and horns of animals (deer, ox, goat and agrimi), as well as ceramics, a votive double axe blade and a stepped base (Evans (1897) 355, (1921) 438, Fig.315, 627). One clay figurine of an ox he compared both with 'late Mycenaean' remains found elsewhere in Crete and also with a small deposit found in a similar ash layer in another part of the cave. Also in the same deposits were many plain cups, often stacked inside each other, and a fragment of the famous libation table was found

beneath this fire feature (Evans (1897 355-356, (1901) 112ff., (1921) 625ff., Boardman (1958) 11-12). Evans' ash layer has been equated (Boardman (1951) 4) with Hogarth's second layer which contained Mycenaean, probably LMIII, pottery.

Apart from the plain cups other pottery included fragments of more than one rhyton in the shape of a bull belonging to this period (Hogarth (1899-1900) 104).

The ash deposits here seem to indicate a fairly extensive use of pyres, confined, perhaps not surprisingly, to the upper cave. From the available evidence of associated objects the rituals connected with the fires seem to have involved both animal sacrifice and liquid and solid offerings contained in the cups and other vessels and poured from the bull-shaped rhytons. It is interesting that no animal figurines or remains were found in the lower part of the cave.

Conclusions

Ash deposits produced by large-scale or at least unconfined burning have been found at the 4 different types of sanctuary; peaks, rural and caves and, to a less certain degree at settlements also.

It is a feature particularly associated with peak shrines and in the protopalatial period seven of these sites had such deposits, and burning must have formed an important part of the ritual activity in these places. Associated objects are most commonly human and animal figurines, as well as various pottery vessels and stone libation tables, and various votive objects. These may well have contained, or were themselves, offerings, which were thrown into the bonfire as an integral part of the ceremonies taking place, thus the fire is itself an important ritual element with special significance, receiving the offerings made to the divinity or divinities.

Of the seven examples listed from the sample, three had animal remains reported in connection with the fire deposits, though at Vrysinas these consist of ox teeth, boars' tusks, one of which was still attached to the jawbone, and an eagle talon (Davaras (1974) 211) which are not at all typical of the material usually found at these sites. Animal sacrifice was therefore a feature of the ceremonial at peak sanctuaries, though from the available evidence it does not seem to have been a completely consistent one.

The fires at these sites seem both to have received and also consumed the offerings, perhaps in order that they then somehow passed upwards to be

received by the heavenly power(s) (Platon (1951) 151; Marinatos,N. (1986) 36). Myres has suggested ((1902-03) 358) that the deposits left by the bonfires were occasionally raked over and the remains gathered up to keep the area clear. Platon (*op.cit.* 103) also proposed a similar sequence for the site at Maza, in which the offerings were thrown into the fire and the resulting ashes then were spread and scattered over the rocks and pushed into the crevices and hollows, which can perhaps be interpreted as a ritual burying of the remains.

Another possible function of these fire features, and one which does not exclude its role as a ritual element in itself, was as beacons (Peatfield (1983) 276,277). Such fires would have been visible not only to the communities which the peak sanctuary served but also, in some regions, from other peak sanctuaries. The use of fire at peak sanctuaries is attested also for the neopalatial period, when these sites may have undergone a loss of popularity. For the postpalatial period there is no concrete evidence from the only site where worship continues, Juktas, that the worship involved similar practices, but neither is it certain that they did not.

The visual function of the fires cannot so readily be proposed for those which have been found at rural

sanctuaries in the sample. At two sites, one protopalatial and the other neo- and postpalatial, Piskokephalo and Kato Syme, the fires were outdoors, but the location of the shrines is not so prominent or immediately visible from large areas.

In other respects however, such as extent and the nature of the associated objects, the deposits found at these sites are comparable with those from peak sanctuaries. For instance, votive figurines, both human and animal, are found at both types, as are stone libation tables. Platon ((1951) 139-40) drew such comparisons between the objects found at Petsophas and Piskokephalo, though he included both sites in the category of peak sanctuary, and between Juktas and Kato Syme there are parallels in the votives offered. However these comparisons cannot be taken too far and the differences also must be noted, for instance the tubular vessel and clay chalices which are such a characteristic feature of Kato Syme are not found at Juktas, or other peak sanctuaries.

Several examples of such fire features come from interior contexts, whether built or natural, and again therefore these fires cannot have had an attention-directing function as has been suggested for the bonfires on peak sanctuaries.

There is a possibility of ash deposits belonging to the protopalatial period in the cave of Skoteino, and the use of fire seems to have continued in the neopalatial period also. Also from the neopalatial period are bonfire remains from the cave of Psychro, though here perhaps the larger amount of such material may date to the postpalatial.

Only the two above caves of those sampled were reported to have contained material derived from apparently deliberate use of fires as a part of the ritual activity of the shrine. In Skoteino the deposits may have been concentrated around certain natural features and do not seem as extensive as those from Psychro, though disturbance in the former as well as lack of complete excavation and reporting do not permit an exact picture to be achieved.

It is hard to imagine very large-scale burning at one moment in time within the confines of even a roomy cave such as Skoteino, as the effects would have been both terrifying and suffocating. The ash layers may therefore have been produced by successive smaller fires, the remains of which were then spread through the cave, a comparable situation with that proposed for the peak sanctuaries. The remains in Psychro do seem significant in their quantity however and must be proof of very frequent burnings.

In the cave of Psychro animal remains, from sacrifices and possibly ritual meals, were a marked feature of the ash deposits; this type of ritual is less certain for Skoteino. Pottery was found in both caves and bronze blades also seem to be common to both, though again the disturbance has affected the accuracy of the picture and the exactness of the chronology.

Two cases of fire deposits found within buildings at nature sanctuaries, both dating to the neopalatial period; one from a rural and one from a peak sanctuary.

At Rousses a fire deposit was found covering the floor of one of the rooms. The situation is slightly different at Juktas where large scale fire layers were found in the open area of the sanctuary for this period, but they were also noted in two rooms of the contemporary building. Both the deposits at this site have animal remains associated and pottery, but the range of votive objects is far greater from the outdoor deposits, and no figurines are reported from the rooms where some ceremonies involving fire were carried out. Perhaps therefore there were differences in intention between the two ritual practices of the different areas, for instance, those inside the building may have been solely concerned with a ritual meal, though this would mean the status of these rooms may have been more than simply subsidiary.

Evidence of fires without the use of ditches or hearth comes also from two settlement contexts, both neopalatial, one from Knossos, though this seems certainly a modified deposit making few conclusions possible, and one from a house at Mallia. Here the material suggests that animal sacrifice and possibly consumption took place in a settlement shrine, without the use of containing structures, though here again the archaeological context is rather unclear due to disturbance.

The evidence concerning bonfire features at sanctuaries splits naturally between those found outdoors and those deriving from interior areas. Those situated outdoors, especially on peaks, where they may also have functioned as beacons, were proabably on a much larger scale. There is some overlap of objects associated with the uses of the fire in both these contexts, suggesting that both the ceremonies and the ritual function of the element of fire may also have overlapped.

Animal sacrifice was certainly a part of the worship associated with the fires in many but is not reported from all the sites. Evidence comes from only three peak sanctuaries (Juktas, Maza and Vrysinas, though the remains from the latter are not the usual

bones of larger animals, as mentioned above), two rural sanctuaries (Kato Syme and Rousses), both caves (Psychro and Skoteino - though very much fewer and less certain in the latter) and both settlement sites (Temple Repositories, Knossos and House E, II2, Mallia).

The pyres were frequently therefore, but not exclusively, for animal sacrifice and the ritual burning of the victims; all however did contain offerings, or evidence of them, of one sort or another, and the fire itself may have been a necessary ritual element for offering and dedication of objects to the deity(s), perhaps marking the passage between the two spheres, sacred and divine.

Hearth

A second feature involving fire, but this time with an associated structure or signs of containment is that here termed a hearth. Those dealt with here are structural fittings and therefore different to the type covered by Metaxa-Muhly (1984), which are mainly the smaller, usually terracotta, non-architectural type, discussed here in another category (offering table-clay, rectangular). She in turn overlaps more with Demargne (1932) who again was dealing with features different from those here, to some extent as he was discussing funerary contexts, and also because again they were not always built architectural features.

Only three certain examples were found in the sample of sites, with two more possible based on mainly circumstantial evidence. One comes from the prepalatial period, one from the neopalatial II and one from the postpalatial, so that the use of such a feature is fairly widespread through time. All came from settlement sites and were situated inside closed rooms.

A hearth was also identified by Taramelli in the cave of Kamares ((1901) 447) amongst the rough blocks found at one spot in the cave. However successive

visitors have been unable to recognise it (Dawkins and Laistner (1912-13) 11; Faure (1964) 179, n.1) and therefore, if correct, unfortunately it cannot be dated.

The aspect which distinguishes the features discussed here from those of the other two categories under consideration is that they consisted of a feature usually above ground level, often elevated, rather than excavated or spread over the ground.

Prepalatial

The earliest example of this type of feature is at the site of Chamaizi, it is also the simplest, with little physical definition. In room 4a against a wall was discovered a small concentration of ashes, with no precise structure but apparently belonging to a hearth (Xanthoudides (1906) 123; Davaras (1972) 288, (1973) 51 - where he agrees with Xanthoudides that it was a hearth, however Platon (1951) 123 mentions ash without referring to it as a hearth). Xanthoudides (*op.cit.* 123, 152-53) considered that the clay offering table and a fragment with two Linear A symbols would probably have been standing close to the hearth, consituting the focus of the room. However nothing was reported as directly connected with the hearth or coming from the ashes, so its precise function is not known.

Neopalatial II

The next example of this feature from the sample of sites used comes from the neopalatial II period, though there is little information available about it. In the Room of the Column Bases, or Lobby of the Stone Seat, which is part of the Central Palace Santuary, Knossos (j), "a curious hearth-like structure" was found (Evans (1899-1900) 28). It was situated in the left-hand corner of the room as entered from the Court. Unfortunately no further details are given as to its exact structure, nor are any finds reported in association with it, so it is not clear precisely what sort of structure it was nor its purpose, other than being possibly a hearth, in this room subsidiary to the main shrine rooms.

Postpalatial

The only example from the postpalatial period found in a good context, from Kannia, room V, is of a much more definite form than any of the above. It consisted of upright slabs arranged to form a box, a rectangular space. It was situated in the south east corner of the room and when found contained ashes and a quantity of shells from limpets and oysters (Levi (1959) 248). This then provides the first clear

evidence of the sort of activities which were associated with a hearth structure in a shrine context, though whether the marine creatures cooked here were intended as offerings in themselves or were for a ritual meal is not certain. The room itself was probably a shrine room, though it is not certain and it may have been only a subsidiary room (Gesell (1985) 77).

Also worth mentioning in this context is part of a deposit dating to the neopalatial I period, though as it is a modified deposit the associated features can only be surmised. The deposit was found in the Stratigraphical Museum Extension excavations at Knossos (i), in the Cult Room Basement were found three large pithoi, one of which, though broken, had connected with it burnt earth and abundant snail shells, as well as some children's bones, including a vertebra showing knife cut marks (Warren (1981a) 83). While the report of this is as yet only preliminary the indications are that these remains resulted from some activity involving fire, possibly originally associated with a hearth, and which shells and human material were either offered or, as it seems from the butcher-marks ritually eaten (Warren *op.cit.* 91-92 and (1981b) 161, 163).

A hearth was found also in the vicinity of a shrine deposit at Kephala Chondru. In area Z1, where

objects of a cult origin were discovered, a hearth was found formed of upright slabs making a sort of box, as in the Kannia example mentioned above. However, the shrine was probabaly originally situated on the upper floor, and the material is therefore a modified deposit and the cult connection of this particular hearth cannot be proved (Platon (1957) 141,201).

Conclusion

In the above, few, examples of hearths found in, or near, shrine rooms there would seem to have been a small, controlled use of fire. The precise activities assoiated with the use of this fire are not always clear, but there are some indications that the hearths were used for cooking offerings made, probably for ritual consumption. The fire therefore is more of a practical means of assisting in a ritual than a ritual element in itself, though it may have been invested with some significance.

Sacrificial ditch or pit

There are few certain examples of this feature, one taking the form of an excavated ditch or pit with some degree of construction and finishing involved. All four of the examples recognised from the sample of sites come from settlement sites. As has already been noted in connection with other built features they are perhaps most likely to be found within architectural environments. Equivalent features which occurred at both peak and cave sanctuaries, the crevices and cracks in the natural rock, were probably utilised in the same way but are not so readily identifiable, and are part of the same feature as the large bonfires also found at these sites, the remains from which may deliberately have been swept and pushed into the natural orifices. It is hard to differentiate such features and discussion and reference to such practices where they are thought to have occurred are found in the section on bonfires. One clear example however of a natural pit used for ritual purposes is the large chasm at Juktas which was found to contain many offerings and will be included here, though all the other examples considered are man-made and show some degree of finishing and surface treatment.

The use through time of such a feature is quite widespread, though none so far have been recognised in the prepalatial period. There is some evidence for the chasm at Juktas in this period (Karetsou (1974) 234, (1981) 143) but as yet it has not been ascertained how this very early use relates to the overall picture of worship at the shrine.

Three of those included here were located out in the open, while only one, Mallia (j), was found inside a building. In some ways it therefore shares characteristics with the hearths of the previous section, but being a sunken feature, i.e. a ditch or pit, is included here.

The use of fire was clearly involved in some way in the activities centering on all these features, and although the shape and construction of them does vary, they share the basic similarity of being subterranean or deliberately excavated below ground level. Three are also specifically reported as being lined in some way, one with clay (Phaistos (a)), one with clay and bricks (Mallia (c)), and the third with stone and stucco (Mallia (j)).

<u>Protopalatial</u>

The one example from a settlement site in this period comes from the palace of Phaistos and is part of

the shrine complex on the western side of the West Court there (a). This feature was called a sacrifical ditch and was situated just outside and to the north of room VIII, the main shrine room. It was rectangular and inclined north to south with the depth at the north 0.30m. In the centre was a bowl-shaped cavity (diameter 0.65m, depth 0.20m) and the whole was covered by a layer of clay, in turn coated with red ochre (Pernier and Banti (1935) 207-08, 215, 217-18 and (1951) 575, 579-80). In the ditch, along with carbon, ashes and the bones of sheep and ox, were found several pottery vessels, including dishes, cups, a jug and an amphora, a stone vessel and pieces of obsidian.

The chasm at Juktas was in use in both this and the neopalatial periods and many offerings were recovered from it of various types (Karetsou (1974) 233-34, (1976) 417, (1978) 249-51, (1981) 141, 153, (1984) 112, (1985) 84 these references cover both periods). Some traces of fire were found (*op.cit.* 1974) 233) though it is not specified whether this results from ashes from bonfires with their offerings which were swept into the chasm or whether burning might have taken place in it; the latter seems less likely due to the great depth of the chasm. It is a very important feature of the shrine and must have implications for the nature of the worship being

carried out here. There are no close parallels from other peak sanctuaries, though Karetsou compares it with one found by Evans in the Asterousia Mountains at Christos, about which little is known (Evans (1928) 81; Karetsou (1981) 141, n.15, (1985) 84).

Neopalatial I

In this period both settlement examples come from Mallia, one from the palace itself and one from a house, this was also the only instance of such a feature being located inside a building. In the Central Court at Mallia (c) were several unusual features which seem related to one another and to the cult rooms on one side of the court (Pelon (1980b) 665-68). One of these features is the bothros, situated exactly in the centre of the court, consisting of a square hollow, 25cm deep (1.15m²) with a slight lip around the edge making the total depth 0.35-0.38m. The floor was of clay and earth and the sides were lined with clay and possibly brick, traces of lime covering were also found (Chapouthier and Demargne (1962) 21-23; Pelon (1980a) 131, 133 and (1980b) 665-668; Van Effenterre (1980) I 59-61, II 449). Four blocks of blackened brick were placed on end inside the ditch, rising to 20cm, and Pelon ((1980a) 131) has suggested the possibility of a third pair. Burnt wood and strong signs of carbonisation were found in the

excavation of this feature but very few objects were recovered. These consisted of neopalatial sherds, some from cups, and one fragment of bronze.

The whole structure was aligned directly between the three sets of pillar bases and pillars of the shrine complex on the west side of the court, including those of pillar room VII4, identified itself as a pillar crypt, and this does seem a significant indication of the associations of the bothros. The exact stratigraphic relationship between the bothros and the levels of the court was not able to be resolved at the time of the excavation, and it is no more certain today, though its dating to the neopalatial period seems secure.

The nature of the bothros as a cult feature also seems sure, though its precise ritual use is disputed. It has been suggested by Graham ((1963) 610-12 and see also (1970) 232) that it was a base on which a table was set for bull sacrifice. The original excavators stresed the apparent fragility of the structure (Chapouthier and Demargne *op.cit.* 22), which Pelon also noted ((1980a) 133; (182) 56; Marinatos, N. (1986) 38) leading him to wonder whether the construction was used only infrequently, or for a specific cycle of ceremonies. However it does seem generally agreed

that it was used for the burning of sacrificial victims, although no bones were found in it, possibly since the victims were burnt above and only the ashes fell into the pit, which itself may have been periodically emptied and the lining retouched to maintain it. In this way the essential spirit of the sacrifice was transmitted into the earth as an offering (Pelon (1980b) 669). Pottery vessels may also have been involved in whatever ceremonies were connected with the sacrifice, though it is uncertain in what way, and the quantity found was small, perhaps partly due to the clearing out of remains.

In House E, room XXXVIII, (j), a sunken basin was located in the western part of the room (Deshayes and Dessene (1959) 110-12, 134-36). Its walls were made of four slabs of ammouda which were embedded obliquely into the ground. The bottom was flat and rectangular (0.80 x 0.20m) with the surface area at the top of 1.20 x 0.90m and an overall depth of 0.30m. The walls were stuccoed and showed no traces of burning, which together with the fact that it was indoors rather than outside, makes this feature somewhat different from the others in the category, though its excavators did compare it with the Central Court bothros (*op.cit.* 111).

Inside the basin under a layer of earth was a

large amount of ashes together with pieces of carbonised wood, mixed in with these ashes were fragments of neopalatial pottery, including pieces from a cup decorated with double axes, some pieces of worked bone, probabaly originally used as decoration and also some small unworked bones, though it is not specified whether these could be part of the manufacturing process or resulting from a sacrificial act or consumption of the animal.

A cult use for this feature is supported not only by the fragment of a cup decorated with double axes, but also other objects found in the room, including a steatite libation table and an unusual steatite circular tripod table, comparable with those found elsewhere in clay. The religious associations of both the room and this feature seem clear, though the precise function of the basin itself remains obscure and confused. It seems that the possibility of burning taking place inside it is excluded by the absence of any traces of constant fire. The excavators suggested it may possibly have originally been intended for some domestic use, also unknown, and that it was finally put to a religious use, filled with ashes and debris, presumably resulting from a ceremony involving fire, then covered by the destruction of the house at the end of LMIII (*op.cit.* 111).

Whether this is so or not the intention behind the placing of material, which shows evidence of deriving from a cult ceremony involving fire, in a sunken pit, seems to be one of ritually burying, or consigning to the powers of the earth, the results of the offering made to a divinity or divinities (Marinatos, N. (1986) 39-40). It is still unclear however whether animal sacrifice played any part in the ceremonies leading to the discovery of ashes in this particular pit.

Postpalatial

The example from this period comes from the open-air shrine at Haghia Triadha called the Piazzale dei Sacelli (c), dating from LMIIIC and later. This was a large open-air deposit of votive offerings with few associated structures except a probable masonry altar. The ditch had an elliptical shape (measuring 3.30 x 1.50m with its greates diameter north-south). Inside were found ashes, carbon and the burnt bones of small animals in a sacrificial layer which varied in depth from 0.50m in the north to 0.20m in the south. Mixed in with the bones were some terracotta vessels, including the fragments of kernos (Paribeni (1903) 319; Halbherr (1905) 370; Banti (1941-43) 69).

The sacrificial ditch of the Piazzale dei Sacelli forms a small distinct feature associated with the use

of fire and animal sacrifice within the much larger area where the votive offerings of various kinds were found; from the reports it seems that none of these figurines or other objects offered were associated with the pit, which is most comparable to that belonging to the protopalatial shrine at Phaistos (Pernier and Banti (1951) 579).

Conclusions

Though there are some variations in form between the features brought together here, and the period of time covered is very great, there are also shared elements in common.

Apart from the use of fire which was clearly important in the rituals associated with all the ditches and connects these features it is also necessary to consider the nature of the objects and finds which are associated with them to see whether the similarities extend further.

Animal remains, apparently from sacrifices, were found definitely in two, (Phaistos (a) and Haghia Triadha (c)) with unworked bones, the derivation of which is not stated, in another (Mallia (j)), and there is a strong suggestion that the fourth was also used in connection with burnt sacrifices. Pottery and in some cases stone vessels were also found mixed with the ash

remains, and perhaps these originally contained offerings of a perishable nature, or were themselves being offered.

Nanno Marinatos ((1986) 35-37) suggests that such features were used for the ritual, not necessarily literal, burial of parts of the sacrificed animal, thereby offering to the chthonic powers. It seems that the animals were sacrificed elsewhere and that only the resulting chosen material was involved in the ceremonies around these ditches or pits where it was burnt. In the only indoor example, Mallia (j), it seems very likely that the burning also took place elsewhere and only the ashes were 'buried', whereas in all the other three settlement examples, all outdoors, the burning seems to have taken place in the pits. It is possible to see this as a comparable practice to that which was discussed for peak, cave and some rural, sanctuaries where the use of bonfires was combined inextricably with the custom of sweeping the remains into cracks and crevices in the natural rock, thus again burning and burial of the offerings seems to be the intention, though in a different manner. In all cases but especially those at the Phaistos and Haghia Triadha - coming from widely separate chronological periods - there is also some evidence in the form of vessels, or sherds of possible ritual consumption also,

but this aspect is not so certain and they could equally have been used for containing offerings.

Conclusion

In this section three aspects of the use of fire in fixed features of more or less definition have been considered, occurring in all site types and periods but possibly with different implications. The structures themselves, where they exist, are quite different, as is the scale of the use of the fire. The associated objects too are different, though in all there are some areas of overlap.

Fire was the important element involved in the cult practices in all instances, but possibly the three separate categories can be seen as representing different stages in the ceremonial process of offering and sacrifice, with fire uniting all as the means of accomplishing the sacrifice.

The ash from bonfires, marked remains of which have come mostly from peak sanctuaries, are the evidence resulting from the ritual acts taking place in these places, the bonfires somehow perhaps received the offerings and they passed through the fire to the possession of the divinity(*ies*).

Hearths, all of which were found indoors, unlike the majority of the sacrificial ditches, perhaps represent a slightly more practical aspect of the use of fire, in the preparation or cooking of offerings for ritual consumption. In one modified deposit, the derivation of which is therefore unknown but may well have been a hearth, the remains of the burning were collected and put into a pithoid jar, and included the bones of children whose flesh had been removed, probably for consumption.

It has been postulated that the ditches and subterranean features were for the ritual burial of the remains of sacrifices thus deposited as offerings to the divinity(s), presumably chthonic (Marinatos, N. (1986) 36).

Built hearths and sacrifical pits are exclusive to settlement sites, but equivalent features can be inferred from natural sanctuaries in the form of crevices and cracks in rocks. Practical considerations must have had some bearing on the size of the use of fire and the need for a containing structure within built-up areas of towns and palaces, which may account for some of the obvious differences between the fire-related features found at settlement sites and those from other types of sanctuary.

However the picture is not entirely as clear-cut

as the above might make it seem and there may be some overlap between the ditches in settlements and the use of bonfires in some of the natural sanctuaries. Three of the sacrifical pits discussed, Mallia (c), Phaistos (a), Haghia Triadha (c), were out in the open and show strong traces of burning together with evidence of the practice of animal sacrifice and the presence of pottery or stone vessels. Although the animals were probably not killed at these spots it seems they were offered by burning so that the essence of the offering reached the heavenly power(s), which makes these features superficially at least comparable to the pyre layers of many of the peak, rural and cave sanctuaries. The ditches or pits seem also to combine ritual burning together with burial of the remains, thus consigning them to the earthly power(s).

There are also marked differences. Firstly in the extent of the deposits; those in settlements being confined within a ditch and, bearing in mind the physical considerations and the possibility of periodical cleaning and emptying, the total quantity of material is much less. This could still be a reflection of the relative importance of the fire-related ceremonies in the various types of sanctuary. This supposition is confirmed to some extent by the fact that comparatively very few settlement sites

contained such features, whereas large votive deposits involving fire on a much greater scale were found at the majority of peak and rural sanctuaries, and in cave sanctuaries to a slightly lesser degree.

Also noticeable is the absence of figurines, human and animal, and votive objects in general, from the sacrificial ditches or pits. It therefore seems likely, as Banti has suggested ((1941-43) 69), that they were used principally for the burning of the sacrificed animal, and not for ceremonies involving the offerings of other kinds as seems to have occurred in the other types of sanctuary. It may be conjectured from this that those features found in settlement sites were almost exclusively related to the sacrifice of animals for a ritual meal and were not used, as at peak sanctuaries in particular, as a means of making other types of offering to the deity(s).

Therefore a different use of fire, with attendant specialisation of features and possibly rituals may be detected in the settlement sanctuaries on the one hand, and the peak and rural, and possibly cave, sanctuaries on the other. There are exceptions, for instance the material at Rousses, as well as areas of overlap, especially animal sacrifice, which, however, is not a completely consistent feature of any individual type where fire deposits were found, except the two caves.

There are perhaps larger areas of similarity between the different so-called nature sanctuaries, peak, rural and caves, but still not complete identity; nor indeed is there total consistency within any one site type. Apart from animal sacifice, votive figurines were also found at certain sites of each type, as well as vesels of pottery and stone.

Rousses does not at first glance conform to the pattern of rural sanctuaries in particular and the nature sanctuaries in general. The fire deposits were located inside a building and contained no figurines, only remains of animal sacrifice and upturned conical cups; however it is comparable in the first two respects with the deposits found in room I of the building on Juktas. In both cases the deposits spread over all, or much of the floor area and seem unrestricted by any structures, and both may be associated with ritual meals.

Chronolgoically the different features were in use through most of the time bands, beginning with the small unstructured hearth at Chamaizi, to the very late ditch at Haghia Triadha and the bonfire deposits at Kato Syme. In the protopalatial period, when peak sanctuaries were most in use and possible material is found in one cave, there is only one example of a sacrificial ditch from a settlement site, and none of

hearths. There is a more general use of the three different features in the neopalatial period, though it coincides with a slight decline in the popularity of the peak sanctuaries. In the postpalatial period too examples of all three categories were found.

In summary, fire was involved in all the three features here brought together in all types of site categories, for the common purpose of facilitating the making of offerings to both heavenly and chthonic aspects. Ritual meals may have been an important part also of the ceremonies surrounding these features; this seems especially likely for the hearths. The precise form the features took in the different site types may to some extent have been affected by the local conditions, however there are noticeable traits also, such as the abundance of votive offerings of all types in the bonfire layers of peaks and some rural sanctuaries, and their almost complete absence from the features associated with settlement sites, where perhaps the ritual consumption of sacrificed animals was more important. These differences in emphasis of the stages of the ritual act may also reflect differences in the beliefs underlying the worship, or possibly each was more appropriate for the particular surroundings in which the ceremonies were carried out.

		Vat/channel
Protopalatial	settlement:	Phaistos (a)
	rural:	Archanes
Neopalatial I	settlement:	Zakros (a)
	rural:	Kato Syme
Neopalatial II	settlement:	Knossos (j)
		Knossos (l)
Postpalatial	settlement:	Knossos (p) ?

Vat/channel

All examples of this type of feature come from built sanctuaries; most are from settlement sites but two are from rural sanctuaries in the protopalatial and neopalatial periods. It occurs in all periods, except the prepalatial, though the collected number of examples is not very large.

There are some differences in the construction and appearance of this feature, which will be outlined below, but all basically consist of dug channels and/or basins capable of collecting and draining liquids.

Protopalatial

The earliest example from the sample comes from the protopalatial shrine on the West Court at Phaistos (a). In room VI, which is a subsidiary room of the actual shrine and therefore level 2, a small channel covered by a slab of rock was found in the southwest corner (Pernier (1902) 521; Pernier and Banti (1951) 203). The function, it was suggested (*loc.cit.*) was the disposal of water, perhaps used in ceremonies; but whatever its precise use it demonstrates that there was a need for water, or other liquids, in the preparation for or performance of cult activities, though as this

is a subsidiary room the former is likely.

At the rural sanctuary of Archanes-Anemospilia in the same period a feature of this kind was also uncovered. In the southwest corner of the vestibule where the doorpost of the western room projected out to form a square space, the rock had been dug to form a ditch or channel in front of and to the west of the doorpost. This ended in a sort of hollow or pit in which 13 vessels were found (Sakellarakis, I. and E. (1979) 354-55). Whether these were permanently stored there is not known, but there would seem to be no need for the arrangement of a channel terminating in a hollow simply for the storage of vessels[1], it does however suggest the drainage or collection of liquids, again in a subsidiary context. The ante-chamber seems to have served both as a vestibule to the main shrine rooms, and for the preparation and storage of offerings, which probably included some in liquid form, which this arrangement may have assisted in some way. Unlike the channel at Phaistos the one at Archanes seems to have been uncovered.

---

[1]A possible parallel exists in the neopalatial shrine at Mallia (h) in XVIII 2, an annexe to the shrine room XVIII 1, where was found an arrangement consisting of a 1m² schist slab covering a sort of ditch simply hollowed in the soil. The ditch was full of vessels of the same sort as found in the sanctuary itself and it has been suggested that this was a repository for cult equipment not at that time required in the shrine (Chapouthier and Demargne (1962) 12; Pelon (1980a) 219). Although there are some similarities with the described situation at Mallia perhaps the main difference lies in the existence at Archanes of a definite channel, and further it may not ever have been covered.

Neopalatial

In the neopalatial central shrine at Zakros (a) a drain was located beneath the floor of the shrine, its treasury and a store room, being one of three branches of a drainage system underneath the whole west wing of the Palace. However there appears to have been no sign of access for use of this feature within the rooms themselves (Platon (1971) 222). Apart from this one of the subsidiary room of the shrine complex, room XXII, used as a storeroom and divided by internal partition walls, contained an installation comparable with a lavatory found elsewhere in the palace (Platon (1964) 144-45 and (1971) 127), made of slabs and with a drain leading out of the room. Platon, considering it unlikely to find a lavatory in the shrine area, suggested an alternative interpretation of this arrangement as perhaps a sacristy where ritual vessels were washed. A possible toilet has also caused some controversy when it was found in the West House at Akrotiri on Thera in a shrine area (Marinatos,N. (1983) 13-15), but this too has been interpreted as a special cult facility connected with the use of water in ceremonies (*loc.cit.*, where the author also briefly lists other drains in shrines).

Drains have been found in other shrine contexts,

such as at Sklavokambos and Vathypetro (Marinatos,Sp. (1939-41) 70ff.; and (1951) 258ff.; Marinatos,N. *op.cit.* 14). Another important discovery comes from excavations at Archanes-Tourkogeitonia, a site not included in the sample as it has not yet been fully excavated or reported. A large masonry altar built on a raised platform was excavated in an open area close to a room identified as a shrine. Near the altar were two drains which were joined to a larger drain as part of the general system (Sakellarakis (1983) 90-91; Catling (1985) 58-59). Here then is good evidence of drains also connected to ritual practices taking place outdoors, centred on a large altar, and therefore presumably not of a subsidiary nature. In this case the drains may have been for the collection and carrying away of liquid offerings made on the altar; a practical and efficient way of coping with the problem of the removal of liquids, even sacred ones.

In the same period at the rural sanctuary of Kato Syme a ceremonial road of finely cut slabs ran through the shrine. A drainage system was found in connection with this road in the form of an open channel running alongside, probabaly to carry the abundant local spring waters. This has the appearance of a purely practical arrangement to cope with the local conditions, but it is possible that the spring water itself had some cult

significance and was brought into the shrine area for a deliberate purpose, though there is no direct evidence to confirm this (Lembessi (1985) 72,73; Catling (1985) 89).

Neopalatial II

In this period two shrines, both at Knossos contained a feature of this general category. In the Central Palace Sanctuary (j) the pillar of the East Pillar Crypt was flanked by two shallow stone trays set into the floor, 25cm deep (Evans (1899-1900) 32 and (1928) 820). The pillar of the West Crypt was surrounded by a form of sunken rectangular trough (Gesell (1985) 86; Rutkowski (1986) 29). And in the adjoining room, named the Vat Room, several shallower stone vats were found (Evans (1921) 165). These features do vary from those previously described in having no drainage channels, and perhaps should form a sub-category. However it has been frequently suggested and often accepted that their use was connected with the reception of liquids, probably libations, which ties them in functionally with the proposed use of others of these features discussed (Evans (1928) 406; Alexiou (1972) 429; Gesell (1985) 28,36,66). In the pillar crypt of the Royal Villa were found both channels and vats, thus connecting the use of the two features, which Evans thought were

clearly designed for the draining off of liquid offerings made to the pillar (Evans (1902-03) 149 and (1928) 406-08).

A more typical drain was found by Evans in the sanctuary of the High Priest's House at Knossos (l). This he restored from traces found running underneath the floor along the middle axis of the room ((1935) 211). Its opening had been destroyed but he suggested it would have been about 6ft. in front of the altar found there and that the whole arrangement was 'intended to carry off the blood of sacrifices.' (*loc.cit.*)

Postpalatial

Perhaps worth mentioning here, though it is again slightly different, is the Spring Chamber of the Caravanserai at Knossos (p). Here a basin was set into the floor, fed by a spring, which flowed out through a drain. Again this differs from the other examples discussed in that is centered on an existing permanent spring, rather than a facility for draining off surplus liquids used on specific occasions, though it is in this aspect more like the drain at Kato Syme. However the situation is complicated further by the fact that in LMIII, the period in which this room was used as a shrine, it is thought that the spring may

have been blocked and the basin choked with vessels, so the purpose of the basin and its drain at this period may have been different.

Conclusions

Of the instances discussed here perhaps only three are true examples of this feature. These three, from Phaistos (a), Zakros (a) and Knossos (1) share the characteristics of being covered and having inlets and outlets. They are each from a different period and while the first two were found in subsidiary rooms and are therefore level 2 and not primarily concerned with acts of worship, the third ran directly through the shrine room itself.

The others mentioned share one characteristic in that they seem to have been open, though apart from this they do differ physically. It has been suggested that functionally they are related to each other and to the main category as they were probably used for the collection and channelling of liquids, though their precise role in some cases is not certain.

The question of drains and other apparatus for directing liquids within shrines is an interesting one. As N. Marinatos has said ((1983) 14) 'the existence of drains next to or in the immediate vicinity of shrines is well attested, although it has been systematically

ignored.' The presence of such features in or around cult places must have some bearing on the sort of practices being carried out. They are often interpreted as apparatus for the collection and channelling of liquid offerings and libations, or alternatively liquids used in ritual purifications. Such practices might also be thought to involve the use of rhytons, usually accepted as vessels for making libations; however they were found in the proximity of these features only in the vestibule at Archanes-Anemospilia and as part of the Stone Vase deposit in the Central Palace Sanctuary, Knossos. The unusual clay vessel with a long neck found in the sanctuary of the High Priest's House, Knossos, may also have had a function connected with annointing using oil (Evans (1935) 211).

Such cult practices can only be true for those features found in level 1 shrine rooms, but those found in subsidiary rooms may have been used in connection with preparation for worship or offerings. Another plausible function is that proposed by Platon for the feature he described at Zakros, room XXII, which he explained as a facility for washing cult equipment, and therefore itself had a ritual significance (Platon (1964) 144-45 and (1971) 127).

Drains and vats therefore may have had different

involvements in the ritual activities in shrines, both in the actual practice of worship in the sanctuary itself and in the more practical area of preparation and cleaning.

Though this feature has not been discovered in other types of sanctuary other than settlement and rural, both built, it is quite feasible that natural features in the form of cracks and crevices were utilised in other types of sanctuary to fulfil the same functions of channelling and receiving liquid offerings. This seems all the more likely as it is known that such features were used for solid offerings in the same way. There would also have been less need to construct special arrangements to collect and dispose of liquids used for more practical purposes than in built-up areas where social requirements were more of a factor. It seems possible therefore that ceremonies and practices similar to those projected for the constructed examples discussed here may also have been carried out in the setting of natural sanctuaries.

Pillar/column base

Prepalatial	-	
Protopalatial	-	
Neopalatial I	settlement:	Knossos (f)
		Mallia (e)
	rural:	Rousses
	peak:	Juktas
Neopalatial II	settlement:	Knossos (j)

Pillar/column base

A pillar or column base occurs in the sample of sites in the Neopalatial I and II periods only (Gesell (1985) has two examples dating to MMI: from Mallia House Theta, room lambda (pp. 14 and 110) and The House of the Monolithic Pillars, Knossos, (pp. 14 and 96), neither of which are included here). The majority of examples are found in settlment sites, probably due to the reasons already cited in connection with other structural features.

Four examples of a feature of this type belong to the neopalatial I period, of which two occur in settlement site shrines (Gesell (1985) lists other examples pp.26-29, some of which are located in tombs), and both of these are from what are termed pillar crypts. This is a particular form of shrine room within settlements discussed in chapter three, in which the pillar itself is a defining characteristic of the room, though not all rooms with pillars are pillar crypts, including some of those considered here. For the immediate discussion the pillar is treated primarily as an architectural feature found within certain shrine locations. Column bases are also discussed in the same category.

House B on Gypsadhes Hill, Knossos (f), contained more than one crypt, but only the southern one seems connected with cult use. Here a rectangular room (2.8 x 3.3m) had roughly in its centre a pillar (0.5m²) made up of eight course of gypsum blocks. The significant evidence of cult use consisted in the placing of nearly 200 small conical cups in neat rows around the pillar, each of which was inverted over the remains of vegetable matter, which must have been offerings (Evans (1899-1900) 74-77, (1928) 548; Platon (1954) 444-45). Their special arrangement in relation to the pillar and the lack of other features in the room does seem to suggest that the pillar in this case may have had particular significance and that this is a shrine in which the pillar held an important position. The cups were the only objects found in the room.

Another neopalatial shrine in which the presence of pillars does itself seem to have had a real significance is that at Mallia, room VII 4 (e). Here no objects at all were found in association with the pillar to demonstrate its precise role, but its cult identification is based on both the location of the room and its pillars in relation to other features, notably in the Central Court, as well as the presence of signs inscribed on them. Room VII 4 was situated on the west side of the Central Court in a position

closely comparable to the pillar rooms of the Central Palace Sanctuary at Knossos (j) discussed in the next section.

The pillar room VII 4 has an ante-room, VII 3, adjoining the court, which itself has rectangular column bases and these are in line with the pillars of room VII 4 and with two circular bases situated between the two rooms. In alignment with all these pillars and bases is the bothros in the centre of the court mentioned elsewhere. The pillars in room VII 4 rest on bases and the southern one preserves three blocks, rising to a height of 1.20m. The blocks themselves are 0.86m^2 in the southern pillar and 0.86 x 0.88m of the north, making them the largest pillars of the palace (Chapouthier and Charbonneaux (1928) 27-30; Platon (1954) 450; Chaphouthier and Demargne (1962) 26-32; Pelon (1980a) 159-71). Both pillars were incised with signs: a double axe on the two lower courses of the southern pillar and a star with 8 arms on its uppermost, and a trident, now disappeared, on the lower block of the northern. Pelon (*loc.cit.*) also noted a less deeply and carefully incised sign on the south face of the south pillar consisting of a star with 6 branches.

As mentioned above no objects, apart from one sherd, were found in this room, but its location and

orientation, together with the pillars with incised signs, strongly suggest a cult use. Unfortunately without associated objects the precise nature of this use cannot be specified.

In this same period a rural sanctuary, at Rousses, has a pillar base as a feature in one of its rooms. Room A was the largest room of the sanctuary (3.2 x 4.2m) with smaller rooms opening off it. In the centre of the room was a square base, the column of which had disappeared but which, it was suggested, was probably a structural feature for supporting the roof (Platon (1959) 207). Along the walls and around the column base were found about 30 pithoi of various shapes, originally intended for storage. Other vessels, about 50 altogether, were also in the room and in its centre approximately was found a fragment of a stone horns of consecration.

The main function of the room seems to have been for storage possibly of offerings brought to the shrine, and the column which once existed here was apparently a purely structural feature.

There is a possibility that a column also existed in one of the rooms of a contemporary building at another rural sanctuary, Kato Syme. Room 6 measured 5.70 x 6.10m which caused the excavator to specualte that there may originally have been a central support

as the room was probably roofed (Lembessi (1977) 405). It is however no longer possible to be certain of this as a later pit destroyed the floor in this exact spot.

A column or pillar also existed in the wing of rooms belonging to the neopalatial period at Juktas, and it seems again to have been a purely structural element. This is the only peak sanctuary so far known to have contained such a feature, but this may be due both to its size and complexity compared with others, and to factors of preservation. The line of rooms here originally contained one large room which had a central column for support. This single space was later in the neopalatial period divided into two, forming rooms III and IV, by a wall which was built over the poros column base, found by the excavation underneath it (Karetsou (1976) 414).

Neopalatial II

The so-called Central Palace Sanctuary at Knossos (j) contained rooms in use in this period in which pillars were a significant feature, and are perhaps the most famous and developed example of the type of shrine room known as the pillar crypt.

In the complex of rooms on the west side of the court, many of which have been attributed with a cult

function, were two rooms with pillars, the East and West Pillar Crypts (Evans (1899-1900) 32-34, (1900-1901) 27-28, (1902-03) 35-36, (1921) 441-42, (1928) 816-820; Platon (1954) 433-35). These were approached through the Lobby of the Stone Seat also known as Room of the Column Bases from the two column bases which had fallen in to it from an upper room which Evans called the Tri-Columnar Hall and believed to be the main centre of worship ((1928) 817), in which the columns played an important part. The first of the rooms with a pillar is the East Pillar Crypt. In this room (5.3 x 3.5m) was a rectangular pillar (0.62 x 0.56m) of four courses 1.78m high; on three sides of each block and on the very top were incised double axes. In the floor on either side of the pillar was a shallow stone tray, mentioned in the previous section. The West Pillar Crypt followed from this room and was the same size. The pillar here was square (0.65m^2) and also had four courses reaching 1.75m high; all four faces of each block and the top were incised with double axes. A bench was found in this room and around the pillar the floor was sunk in a rectangle, also mentioned in the previous section.

No objects were found in either room when excavated which were associated with this last period of use, though under the East Pillar Crypt was a pit containing ash and bones along with MMI A sherds, and

other vessels (Hutchinson (1962) 215), and in a room nearby were ten pithoi. The attribution of a cult significance to the pillars and the designation of the rooms they were situated in as pillar crypts rests mainly on the special architectural arrangements, the frequency of the incised double axes (though Nilsson (1950) 247, attaches no great significance to this fact) and the presence of various deposits of a clearly sacral character, including the Temple Repositories, in the immediate vicinity. The exact ritual associations of the pillars themselves however is less clear as there are no associated objects, though the vats seem to indicate that liquids may have been involved.

Other pillar crypts have been recognised both neopalatial periods at sites not included in this sample but they have been treated in detail elsewhere (Platon (1954); Gesell (1985) 26-29; Rutkowski (1986) 20-45).

Conclusions

From the examples considered in this category it seems that actual pillars, as opposed to column bases, are restricted to settlement sites and are confined to the neopalatial period, with those at Knossos still in use in the second neopalatial phase, when all others had been abandoned. The number of examples of this

feature is not large, but in those in the settlement sites the pillar is a very important feature of the rooms and seems to justify the identification of a type of sanctuary room known as pillar crypt.

It is perhaps noteworthy that the only two examples of the wider category from outside settlement sites both consist of column bases with all the indications pointing to the fact that they were purely structural and lacking any intrinsic cult significance shown by other indications or special arrangements such as vats, or objects such as the cups with offerings, or incised signs, found in the pillar crypts of settlement sites.

As for the exact nature of the pillar crypts themselves the general lack of directly associated objects makes a very full interpretation or firm conclusions difficult to achieve. In most cases their sanctity has to be seen in relation to, and is often corroborated by, their surroundings and assemblages found in the vicinity, so that it seems, as has been suggested (Evans (1913-14) 69; Platon *op.cit.* esp. 432 and 482; Rutkowski *loc.cit.*) that they should be considered as one element of a larger shrine complex, with the main shrine room probably consisting of an upper columnar shrine. Such upper rooms have to be restored from other evidence, which includes the fallen

column bases mentioned in this category, the columns of which would have been directly supported by the large pillars below.

The pillar crypt may therefore have stood in relation to the main cult room as other subsidiary rooms in other types of shrine, and was not itself a cult room where the main activities of worship, directly projected towards the divine took place. However, these pillar rooms seem rather more special and there is some evidence that offerings were made in them from the shrine on Gypsadhes Hill, this is further strengthened by the fact that evidence of subsidiary functions - preparation or storage - found in level 2 rooms is also notably lacking. The vats of the pillar crypts of the Central Palace Sanctuary at Knossos may also be evidence of offerings being made in liquid form.

It seems therefore that the pillar, and the rooms in which they stood, did have some cult significance which derived more from their structural role in supporting the main shrine room above than any inherent sanctity. The rooms are in some sense subsidiary, rather than the rooms in which the primary cult activities were carried out, as is shown by the comparative lack of cult equipment, but, possibly like

lustral basins also, were the scenes of some cult activity.

Temenos/peribolos wall

Prepalatial	peak:	Juktas ?
		Petsophas ?
Protopalatial	rural:	Archanes
		Piskokephalo ?
	peak:	Juktas ?
		Petsophas ?
	cave:	Kamares
Neopalatial I	peak:	Juktas ?
		Kophinas
		Petsophas
		Traostalos
		Vrysinas
	rural:	Kato Syme
	cave:	Psychro
Neopalatial II		Juktas ?
		Kato Syme ?
		Psychro ?
Postpalatial	cave:	Amnis_os ?
		Psychro ?
	peak:	Juktas
	rural	Kato Syme ?

Temenos/peribolos wall

This category includes cases of walls specifically built to enclose the sacred area of a shrine. That none of this feature is attributed to settlement sites, contrary to most of the other architectural features discussed, is explicable by the fact that in such cases the sacred area or liminal zone (Renfrew (1985) 16,18,19,22,23) is physically demarcated by the architectural enclosure of the walls of the room or rooms which contained the shrine. Due to physical exigencies prevailing at such sites shrines within settlements usually, though with notable exceptions, share walls and passages of communication with secular areas of the building, so that no special walls were built to demonstrate the separation of the shrine.

It is interesting to note that two of the five rural shrines, one of which had cult activity confined within a building, the other where it was not, were surrounded by or had areas which were surrounded by, a temenos wall. This perhaps can be accounted for by their physical isolation and a need to define the sacred area, even if, as is the case of the temple of Archanes-Anemospilia, the actual worship was restricted to the architectural confines of the main building.

At Kato Syme the situation is different as a large amount, probably all, the ritual activity took place outside, even when there was a large multi-roomed building present at the site in the neopalatial period.

A temenos wall is a consistent feature of peak sanctuaries. Often the remains are scant making precise dating difficult, though they can perhaps be assumed with reasonable safety to be contemporary with the main period of use at the individual shrines, which may be clearer. Juktas is an exception and a lot of controversy surrounds the dating of the massive wall there as will be discussed below.

On peaks the need for a physical demarcation of the sacred area of the shrine seems obvious and a wall the easiest method. The presence of temenos areas and walls within certain caves is somewhat different and may perhaps stem from a slightly different cause. Presumably the whole area of the cave was considered as sacred and its physical definition quite clear; there is a possibility that cult rites also were carried out on terraces in front of caves (Rutkowski (1986) 54) though there is little, if any, material evidence to prove this.

At Amnisos there are some remains of walls just inside the mouth of the cave which may be an indication of the arrangement of the entrance in former times,

though no precise date is available for it (Marinatos (1929) 100, (1930) 92; Platakis (1965) 212). No such arrangements are noted for other caves and it seems there was no requirement to mark with man-made forms the passage from the secular outside to the sacred interior.

In the few cases mentioned below of walls within caves, and they are by no means such a common feature in caves as peaks, they must have been present not to define the whole area of the shrine, but to separate off areas of special sanctity within it. It is also possible, though there is no real evidence, that walls in caves may have been used to divide off areas of less important cult status, such as spaces for storage or preparation, which in other sanctuaries, including some peak sanctuaries, are confined to subsidiary rooms. However this can only be conjectural. Not only is the precise function of the traces of walls found within some caves not always manifest but neither is their dating very easy, as with certain peaks. As dating is so problematic and as many of the sites were used over long periods with the walls in question possibly in use for more than one their dating is often only suggested, though direct chronological information will be introduced where available.

Prepalatial

In this period the temenos walls at two peak sanctuaries may have been constructed, very different in form.

The most impressive of all these features from peak sanctuaries is that at Juktas, and it may also be the earliest. The remains are massive in places and still clearly visible as they were to many early visitors (Rutkowski (1986) 76 gives references) and were described by the first investigators of the site (Taramelli (1899/1900) 286; Evans (1921) 156-57). Their size, seemingly not justified by the simple purpose of enclosing an area, together with the large area they surround have prompted much discussion and more rectly have been more thoroughly investigated and planned (Karetsou (1979) 281, (1980) 351,353, (1981b) 151). The wall is of striking size with a perimeter of 735m and width of 4 - 5.50m and a preserved height of 3 - 5m. On the north side where the entrance may have been the wall is 410m away from the actual shrine, though on the south and south east sides it is much closer, making a very large temenos area of 18000m^2.

Evans, as an explanation of its size, called the area a city of refuge ((1921) 156, (1928) 68,372, (1930) 6, (1935) 78), though there is no evidence to suggest that its primary function was defensive, or

anything other than as an enclosing wall, though neither are there yet any firm indications of why it was so massive. The whole site of Juktas in many of its features is remarkable and this wall is in keeping with its status but the more precise reasons for its size are not yet known, or whether it might have served a different function.

The date of its construction has also not yet been finally ascertained. Evans thought it was MMIa because of sherds of this date which he found amongst the rough blocks of the wall ((1921) 156, (1928) 372). This would date it as a prepalatial structure and definitely predating the wing of rooms and terraced arrangement of the shrine proper.

Alexiou thinks rather that it belongs to LMIII ((1976) 14, n.18 and (1979) 48, n.18). This would mean it would have been built after the main constructions of the shrine, the period of its greatest popularity as an open-air shrine. He also believed that due to its construction, size and distance from the shrine it cannot have been a simple temenos wall.

Sherds collected from the recent excavations date from early old palace times to MMIII and LMI (Karetsou (1980) 353) and a round stone offering table with relief pattern decoration dated to approximately

MMIII/LMI was found built into the wall (Karetsou (1979b) 30, Fig.76, (1980a) 353 and (1981b) 151).

Further investigation and assessment of the method of construction, precise dating and function of this wall are needed. It has tentatively been included here in the prepalatial period, but with acknowledgement of the different theories and other possible chronologies. If it does indeed belong to the prepalatial period then this temenos wall would have been certainly visible and probably in the same use through all the succeeding periods also.

At Petsophas the temenos area is not as clearly defined and the dating is also uncertain; Rutkowski ((1986) 79) puts it at MMI, thus prepalatial, though the chronological evidence to back this opinion is not given.

A zig-zag wall supporting the platform on which the shrine was situated was described by Myres, then measuring up to 2.5m high, thus forming the temenos area (Myres (1902-03) 356; Platon (1951) 120). This seems more of a terrace wall and may not have encircled the whole peak, though on one side the rock is very steep and the area is naturally limited here.

Although this is not a free-standing wall completely enclosing the shrine as at Juktas it still

does serve to define the temenos area on the sides away from the cliff. The building at the shrine, dated to LMI, was built inside the wall also, so that it still formed the temenos wall in this period too.

Protopalatial

Peak sanctuaries flourished in this period and it is usually considered to be the time of their greatest use. However no temenos walls have been specifically reported as belonging to this period, apart from those already mentioned. Dating is of course difficult but most that are recorded seem to be contemporary with other building activity at this type of shrine, that is mostly in the neopalatial period. There is the added possibility that more sites than those with discovered remains were once enclosed by some sort of wall, which has since disappeared. Alternatively the boundary of the sacred area in this period may have been determined by other means, such as cairns or large stones (Rutkowski (1986) 76).

The traces of walls that have been found are usually scant and minor, making the cyclopean-style of the Juktas walls even more remarkable. If the dating of that wall is correctly connected with the prepalatial period it would still be in use in this, as would that described at Petsophas also.

Rural shrines on the whole seem more reliably dated, especially at Archanes-Anemospilia which was a single phase site, though there is some debate over its precise dating. The excavator placed the building and its contents in the protopalatial period and so the traces of an enclosure wall must date to this period also.

This wall (Sakellarakis (1979) 350, (1981) 71, (1981b) 212) seems to have enclosed the temple on all sides and was built of large loose rocks amongst which were found sherds contemporary with those from the rest of the excavation.

At the other rural sanctuary of this period, Piskokephalo, there is a slight possibility that such a structure once existed, though the reported remains could equally well have belonged to a building. Unfortunately no traces now survive to determine the question. Evans had visited the site and is reported to have noted in his diary the presence at the site of rough masonry walls (Pendlebury, Money-Coutts and Eccles (1932-33) 96). When the site was investigated more fully later (Platon (1951) and (1952)) no traces of such walls were found (*op.cit.* (1951) 127) so that their identification is no longer possible.

Of the remains of possible temenos walls found in

cave sanctuaries those from Kamares only may be most reliably dated to this period, though the remains themselves are very scant and neither their extent, purpose nor chronology is certain. The period of most intense use however of this cave is attributed to the protopalatial period and so the possible remains of temenos walls will be included here in this period also, though the excavator admitted that there was no evidence for the dating of them (Dawkins and Laistner (1912-13) 11). Taramelli, one of the first investigators of the cave (1901) reported finding masonry remains in one part of the cave which he attributed to a hearth (*op.cit.* 447). However later visitors to the cave could find no trace of anything corresponding to this (Dawkins and Laistner *op.cit.* 11; Faure (1964) 179, n.1). In one area of the main cave Dawkins did find slight traces of walls constructed of rough stones placed together without mortar. Four stretches of walls were also found in the inner cave which formed a sort of terrace (Dawkins and Laistner *loc.cit.* ; Faure*loc.cit.*).

No conclusions can be safely drawn from such little evidence, of such uncertain date and nature, though neither can it be totally ignored as possible remains of enclosure walls.

Neopalatial

It is in this period that the majority of temenos walls found at peak sanctuaries seem to have been built, while those at Juktas and Petsophas, already mentioned, assuming the dating to be correct, would still be in use. A total of five peak sanctuaries, in fact all those with conclusive evidence of use in neopalatial times have probable temenos walls, including the two already discussed.

At Kophinas the chief period of use seems to be confined to MMIII. A rectangular enclosure was found on the east side of the peak, only partly preserved, with the north side measuring 8.80m. This side also had on the inside a bench (Davaras (1963) 384, (1961/2) 288; Faure (1967) 124). The enclosure was interpreted as a temenos, inside which important ceremonies involving fire, already mentioned, were carried out.

The temenos here is slightly different to others present at peak sanctuaries as apparently it did not surround the whole area of the shrine, but only a particular spot of special significance. Other objects were found outside the area but it was here that the ashes, from fire ceremonies, were concentrated. The presence of the bench as part of the wall is also unusual, though parallels may be found at Petsophas where, according to Rutkowski, ((1986) 79-

80, Fig.89,90) the earlier temenos walls were incorporated into a three-roomed building with benches along two walls.

A two-roomed building was constructed at Traostalos in LMI (Davaras (1978) 393, see also (1963) 406 and (1967) 102) and although unspecified the wall found at the same time is probably contemporary (Platon (1971) 167). This wall is Z-shaped, following quite closely the brow of the hill, and probably served as a temenos wall. It was also suggested however (Davaras (1978) 393) that it was built as a protection for the shrine from the strong locally prevailing northwest wind.

The traces of a wall at Vrysinas are also of uncertain date though said to belong to the later phase of use at the shrine, (Davaras (1974) 212). It was a large wall, preserved to a length of 9m, with the width varying from 1.20 to 1.80m, and a height of up to 0.80m, made of rough stones. The wall does not seem to have belonged to a building, but rather a small peribolos which enclosed, as at Kophinas, a particular area, in this case finished on the other side by the natural rock.

At Juktas in this period in addition to the main temenos wall surrounding the whole sanctuary area, it

seems that a much smaller, more localised peribolos wall was built to define in effect the centre of the shrine, the holiest area (Karetsou (1975) 330, (1985) 83). This wall was an extension of the retaining wall of terraces I and II and surrounded, though not completely, the chasm and altar, the essential and most sacred elements of the worship at the shrine.

The neopalatial period saw the construction of an interesting and unusual arrangement at one rural sanctuary, Kato Syme. A road, well-paved and built, probably a processional way, ran through the site in the second phase of the neopalatial period (Lembessi (1984) 101, (1985) 73-74). Two legs of the road have been found and are connected in turn with two sturdy walls, one 2m wide and uncovered to a length of 13m, and the other 0.85m wide and 12.5m long.

This seems to be a peribolos (Catling (1986) 89) which enclosed the monumental platform already mentioned and the area provided ample evidence of cult activity in the form of pyres with sacrifices and offerings. Here then is a special area of apparently quite intense ritual activity surrounded by a peribolos within the larger area of the shrine. In this it is somewhat parallel, though different in detail and scale, with the situation at Juktas mentioned above, and also to a lesser extent with that at Kophinas where

a wall enclosed a special area connected with fire related practices.

At Psychro various walls were found, some of which, while very difficult to date, may tentatively be assigned to this period, though some are much later, for instance Halbherr ((1888) 906 and (1894) 14) dated a small wall he excavated as being Roman. Hogarth excavated walls of Minoan date ((1899-1900) 99): he found two large walls defining an area of the inner recess of the Upper Grot, with the natural rock, carved in one place, forming a third side. The area thus contained he called a temenos which was roughly paved. No Kamares-type sherds were found in the temenos, suggesting its use was later, probably neopalatial (Faure (1964) 153-54). Tyree ((1974) 98) thinks rather that this arrangement was made in the succeeding period. Amongst the layers excavated above the pavement of the temenos area were ash deposits, so that here again are clear indications of a temenos wall surrounding an area used specifically for fire ceremonies.

Apart from these clear walls Hogarth noticed also some squared blocks, no long *in situ*, just around the cave mouth (*op.cit.* 98) which he thought were from a wall built to define the limit of the cave, which, if so, is the only other instance of such a possible

arrangement other than that already mentioned for Amnissos, however no date is given for these blocks.

Postpalatial

Perhaps the most famous instance of a temenos wall is that found around stalagmites in the cave of Eileithyia at Amnisos. Unfortunately it is also one for which very little evidence for dating is available, other than that it is most probably Minoan (Marinatos (1929) 100, (1930b) 156; Platon (1930) 163-64; Platakis (1965) 212), though Faure ((1964) 85, n.2) believes it may be geometric on the grounds of its meander shape. Sherds of all ages were found, but the cult in the cave may have flourished in LMIII when this enclosure may also have been built (Tyree (1974) 26-27,99).

The enclosure itself is situated in about the centre of the cave. The wall was built of large, irregular stones without mortar and is of a basic rectangular shape with a small wall bent back perpendicularly at the entrance, giving it its meander shape noted by Faure (Hazzidakis (1887) 341; Evans (1928) 839; Platon (1930) 164; Marinatos (1929) 100, (1930a) 92-93, (1930b) 156, (1941) 134; Nilsson (1950) 58; Platakis (1965) 211-12; Rutkowski (1986) 51). Within the enclosure were two stalagmites, one larger than the other, which bore a resemblance to a mother

and child. Between the two was a small raised block which may have been used as an altar (Tyree (1974) 26) though this is only conjectural.

This is a very clear case of a temenos wall surrounding a feature of special significance, possibly even a cult idol. Presumably this was the most sacred spot within the shrine and one which had to be separated from the rest of the sanctuary, with perhaps only the priests having access to it (Platon (1930) 164).

In the same cave other walls were found, nearer the entrance as already mentioned. These were formed into a rough rectangle to make a simple enclosure (Marinatos (1929) 100, (1930a) 92; Faure (1964) 84; Platakis (1965) 212). The function of these walls is not so clear, but as suggested, their position close to the entrance of the cave may indicate that they were connected to the access into the shrine. Again the dating of the walls is very difficult with no indications provided by the reports, though it may be possible that they were built at the same time as the other architectural features inside and outside the cave which is put tentatively at LMIII.

This is the only example of such a feature appearing in the postpalatial period, though the walls

described at Juktas would probably have been still in use, and less certainly also at the rural sanctuary of Kato Syme and the cave of Psychro.

Conclusions

The walls described here are of two main types: either they surround and enclose the whole site, and all the ritual activity of the shrine took place within them, as at Juktas and Archanes-Anemospilia, or inside the larger area of the sanctuary they are used to define areas of special significance or of particular ceremonial usage. At Juktas an example of both types was found. At two caves, Amnisos and Psychro the walls may also have had the purpose of defining the entrance into the sacred area, which is similar in effect to the walls surrounding the shrines mentioned above.

I I

Material equipment

Horns of consecration

Prepalatial	-	
Protopalatial	rural:	Archanes-Anemospilia
Neopalatial I	settlement:	Knossos (h)
	peak:	Juktas
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
		Knossos (m)
		Knossos (n)
		Knossos (o)
	cave:	Patsos

Horns of consecration

It is noticeable that the actual number of examples of this well-known Minoan object, full-size rather than votive or symbolic, from the sample of shrines used is proportionately very few. It should be borne in mind however that examples of the same object in miniature and model form are dealt with separately and the implications for the category as a whole will be discussed there.

Of the nine examples found from all periods five are from settlement sites, one of which is from a modified deposit and therefore with no architectural context (Knossos (h)). One is from a peak sanctuary, two from rural shrines and one from a cave. Horns of consecration are therefore not confined to any one particular type of sanctuary, nor excluded from any of the types as defined here. Chronologically they are spread over most periods, though apparently this object becomes more frequent later, becoming more common from the neopalatial I period onwards (Nilsson (1950) 188; Davaras (1976) 273). The exception chronologically here is the prepalatial period, in which none of the sites used in the sample contained horns of consecration. However, this category of object probably

did exist in prepalatial times as demonstrated by an object from Mochlos which is so far the earliest example known and is of a more elongated form (Seager (1912) 92,93,Fig.48; Evans (1921) 57,Fig.16c; Nilsson (1950) 188,Fig.88).

Protopalatial

The earliest example found in this sample is from the rural sanctuary of Archanes-Anemospilia, one of two rural sanctuaries of this period. Unfortunately, although this is a single phase site in a closed context, the stone sacral horns, of which only a fragment was found, were a surface find so that neither their original context within the shrine is known, nor their association with any other objects (Sakellarakis (1979) 347, (1981) 212). As the fragment was found outside the building however it can be speculated that it had originally been an architectural feature on the roof or temenos wall. Whatever its precise role it does at least demonstrate that horns of consecration were a feature of the worship in rural sanctuaries at this period.

To this period also belongs the so-called Sanctuaire a Cornes at Mallia, not included in the sample, but which contains an unusual form of the horns of consecration consisting of single horns. However no

objects were found here and it is not absolutely certain that the building was a shrine (Daux (1957) 695-700; Hood (1977) 165; van Effenterre (1980) II/440-42; Gesell (1985) 107; Rutkowski (1986) 167).

Neopalatial I

In this period more examples of this object occur and this may indeed reflect an increase in use. The sacral horns are found in three types of sanctuary, only caves are lacking, from the sample of sites used. (Tyree in her study (1974) of cult caves has no instances of horns of consecration from this period also).

The one example of horns of consecration from a settlement site from the sample is from a building north of the Royal Road, Knossos (h), and is part of a deposit which seems to have fallen from a sanctuary on the upper storey, so that no architectural context is available (Hood (1961-62) 27, (1962) 260). They are described as small limestone horns of consecration but with no further details.

Although the architectural context is not known the other objects in the deposit are from the same assemblage and give a picture of the associations of the horns. Several fine LMIb vessels were found, including

rhytons and an unusual double-vase decorated with plastic birds. Apart from pottery the finds also included sealstones, pieces of ivory, a piece from a large lion's head steatite rhyton and two small offering tables of stone (*op.cit.* and Warren (1969) 64,67,89).

Of a possible 27 settlement shrine sites in the sample for this period only one contained this object, however it is only a sample and not the entire evidence. For instance another example of a full-sized horns of consecration comes from a shrine at Palaikastro which has a difficult context and has not been very fully published and so is not included in the sample but is worth mentioning. In Block B between room 20 and space 6 was a small doorless compartment where a deposit was found from which a stucco pair of horns of consecration was pieced together from fragments (Bosanquet (1901-02) 314). Also in the deposit were more than 48 plain cups, often stacked, other pottery vessels, a miniature lamp and pieces of obsidian and pumice.

Fragments of a large pair of horns of consecration (pres. length 0.38m, pres. height 0.51m, width 0.20m) were found in the courtyard at Nirou Chani. A stepped dais was situated to one side of the east court and the horns were found near it, possibly fallen from it (Xanthoudides (1919) 63-64, (1922) 2-4,14-125).

Other examples, together with the above, all from

settlement sites are listed by Gesell ((1985) 35, n.s 124,125,126).

The only example of full-size horns of consecration found at a peak sanctuary from the sample used comes from Juktas where several were found. The precise original context and dating of these examples is not always secure, but as they seem to be closely associated with the neopalatial structures and wing of rooms it seems safe to date them to this period.

In one case half a pair of poros horns (height c. 0.80m) were found in front of the retaining wall of terrace II together with smaller fragments of at least four similar horns in the same area (Karetsou (1974) 231, (1975) 330). Karetsou suggested that this retaining wall may have been quite high originally and formed an enclosure around the chasm and altar at the centre of the shrine and that these pairs of horns of consecration would have crowned the wall, as seen in certain representations (*op.cit.* ; Rutkowski (1986) 81-84). The horns it seems therefore were architectural elements which marked the sanctity of the place.

The building of the terraces and the wing of rooms has been put at the beginning of the neopalatial period, or just a little earlier (Karetsou (1976) 418, (1977) 419, (1978) 232, (1979) 280, (1981b) 145, (1984) 112)

and the horns would therefore probably be of the same date.

Part of another pair of horns of consecration was also found in a position of re-use in one of the dividing walls of the wing of rooms, between rooms II and III (Karetsou (1975) 332). The fact that they were used in the building of this room, dated to the very beginning of the neopalatial period may be evidence of the use of this category of object at the site in earlier periods, though this cannot be proved.

More fragments of stone horns of consecration came from this site: half a pair made of poros were found in the removal of the fill of room IV (Karetsou (1978) 246) and another pair which are estimated to have been 1-1.30m high were found in the superficial fill of terrace III, in front of the wing of rooms (Karetsou (1980) 341). These may also have been an architectural element, crowning the façade of the rooms.

One other peak sanctuary, not included in the sample of sites, has also yielded a possible full-size example of this object, as opposed to model forms mentioned later. These were found at Pyrgos (Alexiou (1963) 404-5; Faure (1967) 125), but unfortunately no details are available as to size or exact find spot.

The evidence from Juktas is very strongly in favour

of the use of horns of consecration architecturally, as a symbol of the sanctity of the shrine, or a particular area of it. Such a use is illustrated both on the Peak Sanctuary Rhyton from Zakros and on the fragment of a relief stone vessel from Gypsadhes Hill (Platon (1971) 161ff; Alexiou (1959) 346-52).

From this period comes the second example of this category of object from a rural sanctuary: at Rousses a fragment of a stone pair of horns of consecration was found in the largest room, room A (Platon (1959a) 208, (1959b) 370; Daux (1960) 828). This room also contained a large number of pithoi and other vessels, suggesting that it was the shrine storeroom so that the horns of consecration possibly served to mark its contents as under divine protection or as divine property.

Postpalatial

From this period come the most examples of this category of object from settlement site shrines used in the sample. Four shrines of a possible 20 contained horns of consecration, three of which are at Knossos, and one the shrine at Haghia Triadha situated in the open air; all are basically level 1.

The Shrine of the Double Axes, Knossos (m), contains the best example of a pair of horns *in situ*

giving some indication of their associations and purpose. In this small shrine a bench ran across the back wall which served as an altar (Evans (1901-02) 95-101; (1928) 335-44). Amongst the objects standing on the altar were two pairs of sacral horns (*op.cit.* (1900-02) 96,101; (1928) 336) made of white coloured stucco over a clay core. Each pair had a hole between the horns, which, it has been suggested was for the insertion of special objects such as a double axe or sacred bough, as seen in representations (*loc.cit.* ; Nilsson (1950) 169-73). This is the first period in which such a hole is found in association with this particular category and seems to be a late development. No object was discovered in the shrine which could have been inserted and the miniature steatite double axe found resting against the left-hand pair was far too small; possibly the object was of a perishable material, such as a bough.

Also on the bench-altar and arranged around the horns were figurines, both of the votive class and a representation of a goddess. Here then the horns were found in the position in which they had been used during worship: on the altar and associated with the cult image and other important figurines, therefore in the most sacred part of the shrine. Their role may have been one of consecration, both generally the shrine and its contents and more specifically the object, whatever it

was, which was placed between the horns.

An arrangement similar in some details comes from the so-called Fetish Shrine in the Little Palace at Knossos (n). The shrine was in the form of a lustral basin in re-use, the southern balustrade of which supported some important cult equipment, echoing the bench-altar of the previously discussed shrine and is in effect also a bench-altar itself.

A pair of plaster horns of consecration rested on the bench (Evans (1904-05) 9-10, (1913-14) 61, (1928) 519-525). Nearby and also fallen to the floor in front of the bench where they had originally stood were some natural concretions (Evans (1928) 346, Fig.198; Platon (1930) 160-61,163) which are usually interpreted as cult objects in aniconic form. The association between the horns of consecration placed on the altar together with the cult object is therefore repeated in this second Knossian shrine.

Much less is known about the third shrine at Knossos (o) of this period from the sample used which contained horns of consecration as it was badly preserved. The shrine is located in the vicinity of the Villa Ariadne where a small area of floor was excavated intact, covered with river pebbles, the line of one wall was able to be traced (Popham (1970) 93-94, (1970) 191). Very little cult equipment was found,

consisting only of two broken incense burners, and fragments of two others, together with a pair of horns of consecration measuring 23.5cm high and 8.5cm broad at the base. They were made of coarse clay, covered in slip and painted dark red, though it is uncertain whether this paint was uniform all over or formed a design. Between the horns, which flared outwards at the top, was a raised disc which had a hole in it, again presumably for the insertion of an object, possibly a double axe or branch as previously suggested.

Little can be said about the shrine but the excavator thought that the horns of consecration would have been set up against the west wall, with the incense burners standing in front.

The deposit from the open-air sanctuary at Haghia Triadha (o), called the Piazzale dei Sacelli, yielded a number of pairs of horns of consecration (Banti ((1941-43) 58-62; Borda (1946) 61-63; Creta Antica (1984) 223). These were of terracotta and with painted decoration which dated them to between LMIII to protogeometric. Some had projections between the two horns consisting of hollow cylinders, which usually were broken off so that their exact height is not known. In the same deposit cylinders with human features were also found, showing signs of being originally attached to other objects, possibly the horns of consecration.

These terracotta horns are very unusual, but do have similarities with ones found in the cave at Patsos belonging to the same period (see below). It is not certain whether the cylinder between the horns had itself a special significance, as other objects in representations, the double axe or the sacred branch, are believed to have had, or whether it was a form of support for other objects.

This deposit also included human figurines and sphinxes, and animal figurines, of both bronze and terracotta, double axes, fragments of small clay altars, a model ship, kernoi and wheels. The horns therefore were part of a very mixed deposit and were not in a fixed, formal position as in the shrines mentioned above, or if they originally were this is now lost.

Two other settlement site shrines not included in the sample also contained horns of consecration amongst their equipment. These are the shrine in the Southeast House at Knossos and in Block X at Palaikastro. (For information and references see Gesell (1985) 53,97).

Only one cave sanctuary, Patsos, was found to contain this particular category of object, in any period, though there are some model forms. One pair, almost complete, was found, and a fragment of another, both of terracotta (Halbherr (1888) 915-6; Banti (1941-

43) 62; Nilsson (1950) 167; Faure (1964) 138; Zervos (1956) Fig.724, p.442). The more complete example was 0.23m wide and 0.185m high; between the horns was a projection, broken off at the top, with spiral swellings. Between this central projection and each of the horns, on both front and back, were small attachments, like ears, for an unknown purpose. The whole object, except for the central projection was painted with mostly linear designs which date the object to LMIII. Holes perforated the base, four on the front face, two in the back, two on the sides of the horns and two between them. Faure (*loc.cit.*) has suggested that these may have been intended to receive flowers.

Other objects of the same period from this cave included a female head, with a headdress or hairstyle which could be interpreted as the coils of a snake (Halbherr *op.cit.* 916; Faure *op.cit.* 138-39). Bronze and terracotta human and animal figurines also came from this cave.

Conclusions

From this survey of only the full-size, rather than model or miniature, horns of consecration several facts emerge. Firstly examples were found in all site types, though only a very small number of peaks and caves, one in each case (however the miniature examples do make a

difference to this picture). The use of this piece of cult equipment is therefore not confined to any one site type, or excluded from any.

In some cases the examples found, as can be inferred from their context, must have been architectural additions rather than used in the shrine itself in cult ceremonies. In this sample such a function seems likely on the evidence of their find-spots for the horns from Archanes in the protopalatial period and Juktas in the neopalatial, both outside settlements. The role of such examples seems to have been to mark the sanctity of the building thus crowned.

Of all the settlement sites where this object was found, which number five, of all periods, one is from a modified deposit and therefore its architectural associations and relative position in the shrine are lost; three come from level 1 primary shrines and one from a large open-air deposit, also level 1 in effect, though more disturbed.

Of these last examples two, the Shrine of the Double Axes and the Fetish Shrine, both at Knossos, were located in positions of importance and prominence within the shrine, that is on the altar; both are postpalatial. Also common to both is that on the same bench-altar with them were placed the cult obejcts of the shrine, in one

case anthropomorphic, in the other non-anthropomorphic. The shrine near the Villa Ariadne, Knossos, was much smaller and contained only few objects, but there too the horns may have served to consecrate the room and certain objects in it.

In the other rural sanctuary, apart from Archanes, in which horns of consecration were found, Rousses, their use seems less specific, or rather there are no clear indications of what the function might have been. The horns were found in what appears to have been the shrine store room and possibly they simply marked the sanctity of the room in which they were situated, and perhaps to distinguish the contents as sacred property.

There are similarities between the peculiar types of horns of consecration found in the only cave sanctuary which had this object, Patsos, and the settlement shrine at Haghia Triadha, the Piazalle dei Sacelli, both of which are of the same broad date. These similarities are not only in the characteristics of the horns themselves, made of clay with a central cylindrical projection, but also to some extent in the nature of the deposits they were part of. For instance, large wheel-made terracotta bulls were found in both, as well as bronze figurines, both human and animal, though the deposit at Haghia Triadha was greater both in amount and variety.

The horns at both these sites were mixed in with the deposits and seem to have had no particularly noticeable context or associations, perhaps partly due to the general lack of architectural features, and it is hard to determine their precise role and function in the ceremonies taking place.

From the sample used here then it can be seen that variations occur in both the material used and the exact form of this object, though overall it is an unmistakeable and characteristic feature of Minoan religion. The horns were used as both architectural elements and equipment for cult use; in both cases however the function is of consecration: in the former of the building and in the latter of the implements and other cult objects in the vicinity. Iconographic sources also demonstrate the objects: the double axe, sacred bough or libation jug, were placed between the horns, again probably in an act of consecration (Nilsson (1950) 168-73). It does not seem likely that they were themselves objects of worship, or a symbol of a particular divinity, nor were they probably places where offerings were made, though they have been found on altars.

The derivation of these objects is less certain; they have been attributed with an Egyptian ancestry and explained as symbols of sacred mountains, Near Eastern

parallels have also been cited which have led to a suggestion of a development from fire-dogs, though the exact relations between these parallel objects have not been proved (Williams in Hawes *et al.* (1908) 48; Diamant and Rutter (1969); Powell (1977) and a summary in Nilsson (1950) 186-90). The most plausible explanation however seems to be that they were developed from a stylised representation of the horns and skull of the sacrificed bull, first suggested by Evans ((1901) 135; Cook, A.B. (1914-40) II, 530). N. Marinatos has also made the connection between the horns of consecration, the sacrificed bull and a libation made of its blood, explaining both the blood trickling down a pair of horns in the fresco from Xeste 3, Akrotiri on Thera, and the frequency of the appearance of the libation jug between the horns seen on seals (Sturmer (1985) 132; Marinatos, N. (1986) 27-29). From the sample of sites used here may also be noted the presence of horns of consecration at the sanctuary at Archanes-Anemospilia which produced the unique bucket-shaped vessel with the relief representation of a bull which may have held the blood of the sacrificial victim, usually a bull, but in this case possibly a human.

Altar - portable with incurved sides

Prepalatial	-	
Protopalatial	-	[model from Knossos (a)]
Neopalatial I	settlement:	Mallia (h)
Neopalatial II	settlement:	Knossos (l)
Postpalatial	-	

Altar - portable with incurved sides

There are only two canonical full-size altars of this type with incurved sides, both were found in settlement site shrines in different phases of the neopalatial period, I and II. There is also a model altar of this form, but as it is non-functional and votive rather than a piece of shrine equipment it is not included here, though it must be noted that this was also from a settlement site, this time in the proto-palatial period. The existence of the model in this period before full-size examples have been found surely demonstrates that such full-size, practical pieces did exist of which this is a representation and which are now lost; showing therefore that this type of altar was used in the earlier period.

Neopalatial I

The first example of a full-size altar of this form comes from the palace of Mallia, in a level 1 primary shrine, (h); it is perhaps also the most classic and informative example. In room XVIII 1 on the southern edge of the palace was found an assemblage of objects with clear cult associations. Amongst these was a small stone altar, 36cms high (Chapouthier and Demargne

(1962) 10-11, Fig.2; Pelon (1980a) 214,218 and (1980b) 659-61); van Effenterre (1980) 446; though Pelon (1980a) gives height as 43cms), with gently concave sides and two flat faces on each of which was an incised sign, one a cross, the other a star. Close by were various vessels including tubular incense burners, two of which may have originally been positioned one on each side of the altar. Also in the room, but close to a door to XVIII 3 were two clay feet.

The altar was placed front of the door between rooms XVIII 1 and 5 and, as it was thought at the time of the excavations, would have been visible from both. However since then different interpretations have been made: Pelon considers that the door-way may have been blocked in the final phase of use at least, though perhaps not entirely and that through access was no longer possible, but that the two may have been mutually visible. Also from studying the original photographs of the excavations he noticed remains of what appear to be small brick projections standing out from the doorposts of the opening between the two rooms which he believes may have formed either some kind of raised stand or alternatively a niche in which the altar stood (*op.cit.* (1980a) 661). He has further suggested that a narrow staircase existed in XVIII 5 from which direction the priests approached the shrine, while the visitors would come from the outside of the palace into

XVIII 1, thus the religious personnel and the faithful had separate methods of approach. The priests must also have had access into room XVIII 1 as this was where all the important cult equipment was found.

Although there is some debate over the exact architectural details and arrangement of these rooms the overall cult value of the suite and its contents is clear. The altar itself, in some sort of setting and with the floor in front of it paved, was flanked by ritual equipment and was obviously a focus for cult activity and attention, though no objects were found on it to suggest how or whether it was used in this way. The carved symbols, one on each face, may have been visible from both sides and both rooms, though the fact of their being seen may not be as important as their just being there (some of the incised signs on certain pillars are thought not to have been visible, either due to their position or the pillar being plastered (Evans (1928) 212; Nilsson (1950) 247).

Neopalatial II

To a slightly later date, when Knossos alone of the palaces seems to have continued in unbroken use, belongs the second full-size example of the portable altar with incurved sides. It comes from the house known as the High Priest's House which could not be fully excavated

due to partial denudation and destruction by a road.

The central part of the west section of the house contains the sanctuary and here was found a gypsum altar, rather weathered, with a square base and top and three incurving sides and one flat. The room itself was divided into three though not completely, each section being at a different level, the innermost entered by a step forming a sort of dais. Evans restored the position of the altar to this dais, with its flat back placed against the wall in the centre (Evans (1935) 209-210). The only other objects found in the room were a broken gypsum pyramidal stand, possibly for a double axe, and a clay vessel of unusual shape with the remnant of a long thin neck. Beneath the floor in the centre of the room from front to back ran a drain which it was suggested would have carried away the blood from sacrifices made at the altar (Evans (1935) 211), though there are no remains to confirm this and obviously the altar itself is too small to have been itself used for the sacrifices.

<u>Conclusions</u>

These are the two examples of this type of altar *in corpore* and full-size from the sample of sites used in this study. Both are from settlement site sanctuaries and of neopalatial date, one from the latter part of

that period, though they are quite different in form and content.

Of great importance when discussing this category are the examples found at Tourkogeitonia, Archanes, a site not included in the sample as it has not yet received full excavation or publication, also of neopalatial I date. At the south entrance of this building, probably a palace, four altars with incurved sides were found placed closely together so that their flat tops formed in effect a continuous surface (Sakellarakis (1965) 559-61 , (1966) 32; Daux (1967) 784). From the published photographs these do seem to be somewhat squatter and generally more regular than the examples given above, and one important difference, which may also have some significance in their interpretation, is that these altars from Archanes seem to have formed a set, whereas all the other examples were found very much individually.

These objects, which have been called altars, are much smaller than the fixed types mentioned above: the bench and masonry forms, and did not provide a large surface area for either display of objects of any size or number, or for ceremonial actions. The examples from Archanes do suggest one way of getting round this if they were indeed used fitted together as found, as well as possibly individually. Perhaps therefore they

were used as more temporary display stands for special objects or offerings during particular ceremonies, as shown on the seal from the Idaean Cave discussed further below. Evans described the example found in the High Priest's House, Knossos, as a 'sacral base' but does not suggest what might have been placed on it ((1935) 210). Of the examples found one was from a slightly disturbed location, and the other, from room XVIII 1 at Mallia, had nothing on it or apparently fallen from it, but was flanked formally by two incense burners.

It does not appear that the moveability of this object was an important aspect of its function: the example from Mallia seems to have been placed very deliberately, taking into account the architectural lay-out of the shrine and the arrangement of the other objects. That from the High Priest's House had a flat back which Evans took as an indication that it stood directly against a wall and was therefore not free-standing. There is also some iconographic evidence to suggest that this type of altar was placed flat against a wall. This comes from the Throne Room at Knossos, like the High Priest's House of neopalatial II date. In the painted dado on either side of the gypsum throne and in the gap between it and the benches were painted objects which Evans took to be stylised forms of this type of altar ((1935) 919-20). If this interpretation

is correct and the painted form is meant to represent the actual object in its customary position then the function of the altar in this situation, flanking the priestess on the throne (Reusch (1958) 345-52, (1961) 39), seems to be to mark the sanctity of the throne and its occupant.

From these *in corpore* examples there does seem to be a direct connection between this piece of equipment and settlement site shrines, and possibly even more exclusively palatial. However there is some evidence to set against this, of an iconographic nature.

The best known representation of an altar of this type is that on a gem found in the Idaean Cave (Evans (1921) 222, Fig.167; for full bibliography see Rutkowski (1986) 116: Cat.IV 8). Not only does this rock crystal gem give a clear depiction of this type of altar itself but also provides the best evidence so far discovered of the actual use of this piece of equipment in a scene of cult activity. On the altar were placed horns of consecration with boughs between the horns, beside which is a female figure holding a conch shell. Sacred symbols also appear on the gem and in the background is a tree, giving a clear indication that the scene is taking place in an outdoor setting, perhaps a sacred enclosure, though no architecture is indicated, which would dispute the exclusive connection between this type

of altar and settlement shrines.

Further evidence of a non-settlement context comes from the famous Peak Sanctuary rhyton from Zakros (Platon (1971) 161ff.). A shrine in a very mountainous setting is depicted in great detail, both the building itself and its surroundings. Centrally placed in front of the shrine building is a small altar with incurved sides standing on a flight of steps. From the outline representation it is not possible to ascertain exact details of material, size and form, though several parallel lines dissect it horizontally, perhaps carved. No objects are shown either on the altar or in its close vicinity, but the use of this type of altar in a peak sanctuary context is indisputably demonstrated. Both these iconographic sources are dated to the neopalatial I period.

A possible later representation of this type of altar comes from the cave of Psychro on a fragment from a pithos with relief decoration, dating to LMIII or possibly later (Hogarth (1899-1900) 105; Boardman (1951) 57-58; Faure (1964) 153; Tyree (1974) 101). The decoration appears to show an altar of this kind, on which is heaped an offering of fruit. There is no indication of the setting for this arrangement, the whole is rather schematic and probably only a decorative motif and not an actual scene.

Despite such exact and unequivocal representations as those provided by the gem from the Idaean Cave and the Peak Sanctuary rhyton from Zakros, no actual examples have yet been discovered outside settlement sites. The iconographic sources however are so precise in their details as to allow no other understanding than that such altars were used both in peak sanctuaries and other natural settings. The balance of evidence may favour the interpretation that these altars were especially important in rituals taking place in settlement sites, but it cannot be stated with certainty that this was an exclusive use.

It must also be remembered that, overall, a portable altar of this shape is not a very common piece of equipment in the archaeological record.

Altars - conclusions

Now that three different types of altar have been discussed, of varying physical characteristics; two of them being fixed architectural features and the third a moveable piece of equipment, the overall role and function of 'altars' must be considered.

From the examples of the three types collected and studied it was seen that none were exclusive to any one category of shrine or chronologically limited to a particular period. That the bench-altar was predominantly situated in settlement shrines was accounted for to some extent by the fact that it was used also extensively in the surrounding, secular architecture and is not alone in being transferred from the domestic world for use in the religious sphere. However the emergence of a special form of shrine within settlements, the bench sanctuary, centred on this feature was noted as important and significant and one with a long history (Lembessi (1981) 5, n.7).

Other patterns were less clearly discernible: the portable altar with incurved sides may have been a more frequent element in the worship in settlement site shrines (this would be an exclusive association but for some strong iconographic evidence) and the masonry altar

in cave sanctuaries. But all such conclusions were tentative and provisional, the only firm one being that no type of altar considered was found to be exclusively associated with any one type of site.

Structures and objects have been brought together here, in three different but internally consistent categories, under the general heading of altar as each do perform some, if not all, of the functions which are associated with the term and all three categories have in the excavation reports and studies been identified as such. At some sites, Karphi (a) and also Archanes-Anemospilia, examples of different types were found together: can this be taken as an indication that each was used in ways which did not completely overlap? To some extent a difference of specific functions between the three categories is obvious as can be inferred from their physical distinctions: the portable altars were small with a very limited surface area on which to place anything, eliminating their use for the display of large or multiple objects. The bench-altar is the only type so far discovered which has had cult figurines and other objects found *in situ* on it, or closely associated with it (Myrtos; Shrine of the Double Axes and the Fetish Shrine at Knossos; Kannia; Karphi). Thus the support and display of the object of the cult may possibly be a function restricted, or most commonly associated with,

the bench type of altar.

The bench-altar is the most common of the three from the sample of sites used here, and occurs most frequently in the postpalatial period. The masonry altar is almost as numerically popular in the sample of sites. This may have been reserved for a different function to that of the bench type; the only example of anything found *in situ* on one of these is the human sacrifice at Archanes-Anemospilia, though this may have been exceptional. Marinatos (Marinatos, N. (1986) 15) does not believe that sacrifices actually took place on these altars but were carried out elsewhere, but they received the offerings resulting from them. For instance at Psychro a large number of cups and stone offering tables together with ashes and bones were found in the area of the altar, and offerings of different kinds were found in the vicinity of the altar on Juktas.

As the precise ultimate function of these three types seems to have varied it is perhaps also possible that the ceremonies and rituals associated with each did so too. If this were the case then the distribution of these ceremonies would follow that of the altars with which they are associated, and therefore, from the evidence discussed, would not have been limited to any one category of shrine. However final conclusions about the use of an altar, in all, must be reserved

until the larger associations and assemblages have also been discussed: the three different categories of altar have been considered separately, with the implications arising from the distribution of each outlined, now it may also be useful to assess the use and importance of all such structures and objects fulfilling the functions attributed to altars.

"The cult needs an altar" so stated Nilsson ((1950) 117); but although from the sample used here an altar certainly may be found in shrines of all site types and in all periods, with the variations noted above, it is not an overwhelmingly significant feature of any. The total numbers involved are very small in comparison to the possible number of sites, and in no category or period does such a feature seem particularly essential. Also as noted by Banti ((1941-43) 46) important cult accessories, such as libation tables, snake tubes and offering vessels were often found on the floor, sometimes in front of altars or beside them, but deliberately not on them, which might have been thought to have been part of their function as altars.

Perhaps the usual definition of altar is at the same time both too precise and too vague. Too precise in that it encourages assumptions which expect to recognise just a single feature or piece of equipment fulfilling the role of altar and possessing the status

and sanctity which this entails, so that other objects may possibly be overlooked. Possibly a wider variety of features or objects could perform the functions ascribed to altars which our assumptions do not enable us to perceive as such. Yavis in his study of Greek altars does include many different types of offering table also under the heading ((1949) *passim*) and Xanthoudides considered the circular tripod table from Chamaizi, and others similar, as altars, though he based this on the table from Gournia originally believed to have supported a cult figure, a view since changed (Xanthoudides (1906) 143-44; Evans (1935) 143, n.6; Russell (1979) 30). Libation tables, offering tables, hearths, bonfires, natural cracks and crevices were all also a means of approaching the deity through the making of offerings, which is one of the functions of an altar. Cult objects have been found not associated with special places or furnishings, and together with a variety of other objects; ceremonies seem not always to have been directed towards one particular spot, but conducted over a wider physical area. In this way our traditional definitions are also too vague or broad to be very helpful; covering such a range of functions and roles which were not necessarily combined in one in Minoan religion.

Worship may not always have required a permanent, specifically built or set aside piece of equipment

towards which all ceremonies and rituals were exclusively directed. In some shrines especially ones on peaks and in caves there does not seem to have been a concentration or chanelling of devotion to one specific area, or rather it is a specific area but broader than that which might be covered by an altar. It must be noted however that recognisable altars are not entirely absent from such sanctuaries and structures serving as altars were found, for instance at Juktas and Psychro, suggesting a desire for some focus of worship.

So although comparatively few examples of actual altars have been found, perhaps our assumptions surrounding the term are too narrow and altars are not always recognised as such since various types of feature and equipment may each in part have fulfilled some functions of altars, rather than all of them being embodied in one piece of equipment. Another credible explanation for the apparent relative lack of altars in shrines is that they may have been made from perishable materials and are now lost.

If this were so the only positive evidence would come from iconographic sources. That wooden furniture existed is known: the impressions left by some pieces have been discovered on Thera, and decorations from putative wooden boxes and chests are not rare. Thus it is in theory at least possible that altars constructed

of wood existed which have since decayed. This is the implication of the suggestion that the cult statues at Gazi stood originally on wooden stands from the traces of carbon found under the objects, though this may have derived from either a wooden floor throughout the room or to some kind of structure used to support the goddess figurines (Marinatos (1937) 279-80).

In the iconographic sources altars have been recognised, though it is usually impossible to identify the materials intended to be shown. Apart from the instances mentioned above in connection with the different categories of altar surviving, there is also a corpus of evidence relating specifically to a particular type of altar - that used for sacrifice, usually of bulls but occasionally of other animals.

The evidence concerning bull sacrifice has been the subject of much study (Sakellarakis (1968), (1970); also Nilsson (1950) 229-31; Long (1974) esp. 62-64; Rutkowski (1981) Fig.11 1-10, pp.49-50; Marinatos, N. (1986) *passim*). Probably the most famous and clearest depiction of a scene of sacrifice is that on the Haghia Triadha sarcophagus (Long *loc.cit.*) which shows in detail a bull being sacrificed surrounded by the related equipment and officials, indicating the kind of ceremonies which were involved. Here the bull is lying on a table, probably made of wood, with finely carved legs

(Long *op.cit.* 62; Graham (1969) 211) which presumably could be moved if required. The central scene of the bull ready for sacrifice on similar large heavy tables is repeated on several seals (see Marinatos (*op.cit.* figs.1-3,11) and appears not to have been an exclusively funerary practice. The tables used in these scenes appear all to be fairly similar and must have constituted a particular type of altar, no evidence for which survives in the archaeological record, though it has been suggested (Sakellarakis (1970) 175f; Long (*op.cit.*) 62) that the table top was made separately of stone and was therefore removable and that possible examples of such a stone top may be recognised in the slabs found at Archanes-Tourkogeitonia and Dendra.

Another scene, this time on a sealing, may also depict a type of altar not preserved *in corpore.* This comes from Haghia Triadha and shows a woman, probably an adorant judging from her stance and gesture, in front of a table on which stand objects which have been interpreted as stalactites or possibly horns of consecration (Halbherr (1903) 42; Levi (1925-26) 139; Platon (1930) 167-68; Nilsson (1950) 181, Fig.84; Rutkowski (1981) 29, Fig.2.14 and 3.12 and (1986) 108-09, 116, Fig.132). Much is not clear or certain about this scene, such as where it is taking place and the exact nature of the table itself and the objects on it. However, since the

woman may be interpreted as performing an act of worship, and the stalactites, if such they are, are the objects of that worship, then the piece of equipment they are standing on may be classified as an altar of some sort, in the form of a table which was possibly decorated with a garland suspended underneath.

Here then is evidence pointing to the existence of altars in other forms, tables of one sort or another, which due to the material of their construction have not survived, except in pictorial form.

To sum up: the altar in one form or another, including ones which no longer have a physical presence in the archaeological record, were almost ubiquitous in Minoan cult, and prominent in the iconographic sources (Rutkowski (1981) Ch.III). However, in the terms used here to determine what is an altar they seem not to have been very numerous and the amount discovered in the sample of sites used here is small. This, it has been suggested, may be due both to the perishability of some types of altar, and also to the fact that a wider range of features and objects shared the functions which are attributed to altars, and these did not find their fulfillment in only one, as we might expect based on our modern assumptions.

Circular tripod table

Prepalatial	settlement:	Chamaizi
Protopalatial	-	
Neopalatial I	settlement:	Knossos (d)
		Knossos (e)
		Mallia (j)
		Zakros (a)
Neopalatial II		
Postpalatial	settlement:	Gournia
		Knossos (m)

Circular tripod table

All examples in this category come from settlement site shrines and none appears before the neopalatial period, except for one from the prepalatial period, which has variations but seems to belong to this general category. Other variations from the canonical form of a flat, circular disc set on three legs, do also occur, including one very ususual one in stone, but again fit into the overall physical-functional characteristics.

Although all come from settlement sites, the total number found in the sample used is small, and does not form a very significant feature in any period.

Prepalatial

The earliest example comes from the house at Chamaizi. It came from the middle of the room 4, which appears to have been a domestic shrine (Xanthoudides (1906) 123, 143-44, plate 8, no.6). The table was formed of a thick disc of red clay with a raised rim around its circumference (diameter: 0.30m, thickness: 0.05m), the clay was plastered, painted red and fired. For feet it has two oblong bars attached to the bottom, and in this obviously varies from the other examples discussed here which are all tripod, but the

general characteristics are similar.

Xanthoudides (*op.cit.*) called this table an altar and compared it with examples from Gournia and Knossos, both much later. He suggested it was used for offerings and possibly as a stand for figurines. Some figurines were found in the area, but none appear to be cult images (Xanthoudides *op.cit.* 120, 135-43; Platon (1951) 123; Davaras (1972) 284, 285-86 and (1973) 46,51), nor were they near this table. Also in the room, but none in close proximity, were fragments of pithoi, remains of a hearth and a piece from a vessel with two inscribed symbols. The precise use this table was put to is therefore not indicated by any directly associated finds, but an interpretation as an offering table is possible. Alexiou ((1979) 45) disagrees and considers it rather to have been a potters wheel, though the feet would seem to make this unlikely.

Neopalatial I

In this period four settlement sites contained this piece of equipment, though some display variations from the usual form.

In a small house at Knossos (d) what appears to be the contents of a shrine were found stored inside a pithos. The assemblage comprised many vessels (Evans

(1935) 138-68) among which was a tripod table (*op.cit.* 149-50). This was made of terracotta and stood on three legs, its upper circular surface was flat except for a pattern of raised ridges. These ridges ran from the circumference to the centre in pairs, thus quartering the table. In its centre was a raised circle, which it was suggested may have held a cup or bowl.

Evans believed these special arrangements were designed for the use of snakes, the bowl in the centre being filled with milk to attract and feed them. He based this theory partly on the other objects belonging to the same assemblage which had direct snake associations, including some strange perforated vessels, one in the shape of a honeycomb and two resembling jugs, which all had plastic snakes attached to them.

From the same group of stored objects came another circular tripod table, again of slightly unusual form and in this case also with clearer indications of use (Evans (1935) 151). The table had three double legs and was covered by a closely fitting lid. A hole in this cover revealed ashes inside and the whole object seems to have been some kind of hearth or brazier, though its precise purpose and role in the ceremonies of the shrine are not certain.

At Knossos in the same period more standard forms

of tripod tables were found in the House of the Sacrificed Oxen (e). This shrine, found in the basement of a house (Evans (1928) 301-03) contained few but fairly remarkable objects. In two corners, diagonally opposite each other, was a large ox skull, in front of which was placed a terracotta tripod table, restored from fragments.

As restored these tables measure 56 and 90cms in diameter respectively. The larger had painted bands around its edge, making it comparable with examples found at Nirou Chani (see below); while the smaller was more ornately decorated in red and black, with grass sprays on its feet.

No traces of burning were mentioned nor are there any indications of what type of offerings might have been placed on these tables, perhaps partly due to their state of preservation. However their positioning directly in front of what may well have been sacrificial animals must be significant.

From this period also comes a flat-topped, circular tripod table of the usual form, but more exceptionally is made of stone. It belongs to a level 1 primary shrine found in room XXXVIII in House E at Mallia (j). It is made of steatite and seems to be the only one so far found made of stone. Apart from the material the

table has the usual general characteristics of a flat top and three legs. The side is carved with two deep grooves and under each of the feet is a small hole, which, it has been suggested, were intended to receive pegs to fix the table to the floor or other surfaces (Deshayes and Dessenne (1959) 111,136, pl.XLIX 7).

The table was found in the proximity of the strange sunken basin, containing ashes which may have been some kind of sacrificial pit, together with a stone square libation table, a stone bowl and several stone lamps (*op.cit.* 110-12,134-36; van Effenterre (1980) 448).

Fragments of three platered tripod tables were found in the Central Shrine area at Zakros. These seem to have fallen from above, so they have no known architectural context, nor are any further details available (Platon (1971) 158,116). They came from the same area as some faience pots and other pottery and all may have belonged to the shrine.

A large number of examples of this piece of equipment came from the villa at Nirou Chani, a site not included in the sample. The tables were found in rooms 16, 17 and 18, none of which seem to have been actual shrine rooms (Xanthoudides (1922) 8,15-16; Evans (1928) 283). A total of 40-50 were stored in rooms 17 and 18, apparently often in stacks, while three were lined against the wall in room 16. Each consisted of a flat,

thick, circular disc of clay on top of three legs, the whole being plastered and painted. The main part was painted red, with red, black and white bands on the outside of the top, similar to the table from the House of the Sacrificed Oxen, and these also had a black and white band on the inside of the rim. They varied in size with diameters between *c.* 0.30-0.65m and heights 0.15-0.20m.

It was specifically noted that no traces of fire were found on the tables and it was even suggested that they had not been used at all. The nature of this assemblage of so many examples of this piece of equipment is not clear, though it has been proposed that the villa was a repository for cult equipment, which was then despatched to other shrines, some possibly overseas (*loc.cit.*).

There is one other large concentration of tripod tables, this time from Archanes-Tourkogeitonia (Sakellarakis (1965) 559-61; Daux (1967) 784-85). Here 30 of these tables had fallen from an upper floor along with a large rectangular stone offering table, a plaster horns of consecration and some pottery.

The great number found together at these two sites can surely be taken as an indication, whatever their final destination if not intended for use where they

were found, that this piece of equipment was important in Minoan ritual practices. However the actual number found in individual shrines, or shrine deposits, for this and other periods, is not great.

Postpalatial

Two shrines, both again from settlement sites, contained tripod tables in this period; both were level 1 primary shrines. At Gournia in a small independent shrine of one room only, a low plastered tripod table occupied an important position relative to the other objects in the shrine. The objects in the room were grouped in the northeast corner around the table which had a diameter of 40cms and a height of 21cms (Hawes *et al.* (1908) 47,48,pl.XI.7; Evans (1935) 143,n.6; Gesell (1976) 248-49; Russell (1979) 30; Gesell (1985) 51). It was reported that the base of a tubular vessel was found actually on the table, which would have had very important implications for the use of both objects. However since the first publication some doubt has been cast on this (Evans and Russell *loc.cit.*) and it seems unlikely that this was its true position.

The other objects in the shrine were one largely complete figurine of a goddess and fragments of others, together with five tubular vessels and fragments of others, as well as model birds and snakes and a fragment

of a pithos decorated with a relief double axe (Hawes *et al.* (1908) 47-48; Evans (1935) 143,160,161; Yavis (1949) 1-2; Nilsson (1950) 80-82; Alexiou (1958) 185-87; Gesell (1976) 248-50,256; Hood (1977) 160-62; Russell (1979) 27-33).

The other tripod tables of this period comes from the Shrine of the Double Axes, Knossos (m). Its position within the shrine, relative to other features and objects is certain as it was fixed to the floor (in one sense therefore it is a fixed feature but its general characteristics conform to those outlined here and is in no way an architectural feature and therefore included here), and so must have been in consistent and frequent use in the ceremonies taking place in the shrine.

The table, which had a diameter of 0.39m, had its feet embedded in the centre of the dais, situated in front of the bench-altar across the back of the shrine (Evans (1901-02) 97, (1928) 336; Yavis (1949) 4). On either side of the tripod were placed some cups and small jugs, and the whole dais was strewn with waterworn pebbles. The bench, also covered with pebbles, supported two pairs of horns of consecration and five figurines, including one of a goddess.

This arrangement gives the tripod table an important central position in the shrine, directly in

front of the altar where the goddess herself was represented. The obvious suggestion is that offerings of some kind were made on the table, though their precise nature is not indicated, possibly they were contained in the accompanying vessels, or in others found in the same shrine.

Conclusions

This piece of equipment came exclusively from settlemt site shrines, from the sample of sites used, and mainly from the neopalatial period onwards, with one exception of a table of slightly different form from the prepalatial period. In the postpalatial period it has a particular connection with the household goddess in two shrines at least.

All the examples here were found free of objects, if the revised opinion concerning that from Gournia is accepted, as seems likely. As has been suggested in the course of the above discussion, on the grounds of their physical characteristics and relative positions, these tripod tables were used as a means of making offerings. The tables from Gournia and the shrine of the Double Axes, Knossos were found in close proximity to cult figurines, and those from the House of the Sacrificed Oxen, Knossos, from an earlier period, were deliberately placed in front of the ox skulls which

formed the foci of the shrine.

Yavis (*op.cit.* 13) calls this object a tripod hearth, though there is not a great deal of evidence to support a use with fire from the examples discussed here, apart from the table from the 'Snake Shrine' deposit, Knossos, which has some variations from the usual form to adapt it for such a function. (One found in the tomb of Zapher Papoura did have charcoal on it and seems to have served as a hearth, but as this is a funerary context it is not considered here (Evans (1906) 39,pl.LXXXIXa). However Yavis also admits: 'It is not possible to determine exactly the ritualistic use of the tripod hearth' (*loc.cit.*) and discounts their use for burnt offerings since no remains consistent with such a function have been found, and they would also seem to be too small, though Gesell believes that this was their intended use in the neopalatial period at least ((1985) 63).

None of the examples discussed here, again apart from the one quoted already from the Snake Shrine deposit, were reported as showing any traces of fire, so Yavis' suggestion that they were used to burn incense also seems improbable, especially as there are several types of vessel specifically designed for this purpose; or again that they may have held coals for the preparation of milk or bloodless offerings; they seem

more likely to have held the offerings themselves, possibly within other vessels placed on them, though there is no evidence available to confirm this.

It seems probable therefore that some form of offering was made on these tables, though the precise nature of them is not certain, nor whether they were necessarily the same in all cases. It must be remembered also that this was only one form of equipment used for making offerings, though its position in some shrines, and the large numbers found in some deposits, suggest that it was a very important one. The shape it takes is generally consistent, as is the fact that it is found only in settlement sites. Perhaps therefore the tripod table fulfilled requirements particular to ceremonies carried out in such sites, though not a very large proportion of the possible number of sites contained them.

Rectangular trays

Prepalatial	-	
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
Neopalatial I	-	
Neopalatial II	-	
Postpalatial	settlement:	Gazi

Rectangular trays

Included in this category are pieces of equipment of fairly specific shape, though some variations exist, and are all of terracotta. Some are sunk into the ground and so in effect are fixed, but are included here in the section of moveable equipment as they are not architectural features and are essentially pieces of equipment. All, whether fixed or not, were found on the floor which apparently was their intended position of use. Though they are often called offering tables they have also been interpreted as domestic hearths of no cultic value at all (Metaxa-Muhly (1984) 107-22) and the rooms they were found in kitchens not shrines.

This piece of equipment appears first in the proto-palatial period, when by far the majority of examples occur, though the overall numbers are fairly small. They are from settlement site shrines exclusively; none have so far been identified in rural, peak or cave sanctuaries.

Protopalatial

Two settlement site shrines contained this piece of equipment in this period and both are very clear, canonical examples. It seems that not only did it

first appear in this period, but in a well-developed form; later examples are not as fine or distinct.

The first was found in what seems to be an independent shrine at Mallia (a), about 100m west of the palace. In the room which seems to be the shrine proper, and therefore in a primary level 1 context, a large rectangular table of offerings was found approximately at the centre of the room (Poursat (1966) 521,523,531. The table measures 92 x 66 - 74cms.).

The table was made of rough clay and had a cupule positioned near one of the narrower ends. Of great importance when considering the ritual use of this piece of equipment is the fact that around the cupule and elsewhere are clear traces of fire. It seems therefore that the table in this shrine was used for ceremonies involving fire, possibly the burning of offerings, given its prominent and permanent position within the shrine.

The bottom of a tripod vase was found up-turned on the table, on which was a double axe in very light relief. Slabs surrounded the table on three sides (excepting the north), though it is not known whether these had any special significance. It is also difficult to explain the purpose of a stone, roughly triangular, with a natural hole passing through it, which seems to have been deliberately embedded in the

ground near the northwest corner of the table.

Also in the room, which had a bench in the southeast corner, were four circular clay tables with a single conical foot, of the type called 'fruitstands', a jar set into the earth possibly to receive libations, a triton shell and several pottery vessels.

The second example of this piece of equipment came from the shrine complex on the west side of the West Court at Phaistos (a). It was found in room VIII, which, as in the above shrine, was the shrine room proper among other subsidiary rooms, and so its context is also level 1 primary.

This example was made of terrcotta also and measured 0.55 x 0.45m, making it smaller than the above. It too had a cupule, more centrally place, though a little towards one of the smaller sides. A rim runs round the edge and the whole surface of the table is inclined inwards towards the cupule, perhaps to facilitate the collection of liquids (Pernier (1904) 409,482,; Pernier and Banti (1935) 196,230, (1951) 578).

Another distinguishing feature of the Phaistos table is the decoration of the rim. This was covered on all sides with impressed decorations of ox-type figures and S-symbols, in different quantities and arrangements on each side. The bull-motif can perhaps

be regarded as having a special religious significance. The table was sunk into the floor, as at Mallia, in a bed of fluvial pebbles and sand, the rest of the floor was covered in gypsum and plaster. It was placed almost centrally in the room, again giving it a prominent position, with its sides not parallel with the walls of the room. Gesell noted some traces of burning on the surface of the table, though this was not mentioned in any of the original reports (Gesell (1985) 120; Metaxa-Muhly (1984) 110).

Room VIII had benches running along three walls, the table was close to that on the west. Of the objects the room contained there are some with parallels in the Mallia shrine: namely a circular terracotta offering table on a high cylindrical foot and a triton shell. Also in the room were an unusual stone libation table, stone and pottery vessels, a fragment of a sealing and a bronze dagger blade.

Other similar clay rectangular tray-shaped tables also date to this period, some only in fragments, from places not included in the sample (Metaxa-Muhly) (1984) 110-11; Gesell (1985) 15,n.31). One is from room I.12 of Building A of Quartier Mu at Mallia; it belongs to an interesting shrine, unfortunately not yet fully published (Daux (1967) 885; Poursat (1978) 23; Tiré and van Effenterre (1978) 63-66; van Effenterre (1980) 180).

Another one came from Phaistos, in the area of the central court, but the exact details of its context are not known (Levi (1976) 267,n.9,Fig.419,pl.165d). It measures 0.52 x 0.42m with a cupule of diameter 0.165m, has a raised border and was undecorated, traces of fire were noted on its surface (Metaxa-Muhly (1984) 111,118). Fragments of others have also been found at Phaistos (Gesell (1985) 15,n.31 gives a list with references) though their original contexts are not known and may not have been shrines. Finally a fragmentary one which, unusually, was painted, came from the shrine at Koumasa, again not fully published (Xanthoudides (1924) 49-50,pl.22; Hood (1977) 163-64; Gesell (1985) 102).

There are also one or two related objects which have variations from the more simple form. One was found in a protopalatial building at Zakros (Platon (1981) 366,pl.253). The overall shape was similar to the ones already described, though not exactly, and the main difference is in the material, which is stone. Also the cupule is actually a cavity, in the centre, which has a stone vessel inserted into it. Precise details about this table and its associations are not known, nor whether the context was certainly a shrine.

Another possible example was found in room LI at Phaistos, which may or may not have belonged to the shrine complex there, but is here not included. It

consisted of half of a rectangular tray-shaped object, which originally would have stood on four feet. It had a raised edge with painted decoration, possibly of animals, and also plastic decoration of reels. The excavator believed it to be a libation table (Levi (1952-54) 407 and (1978) 212) but due to its incomplete preservation it is impossible to say whether it would have had a cupule or hole for draining, though there are no signs of either. It seems to have some different implications of use since it was obviously not fixed in the floor and it also had feet, though the animals on the rim are somewhat reminiscent of the other example from Phaistos.

Postpalatial

Only one example of a clay, tray-shaped rectangular offering table has come from outside the protopalatial period, also from a settlement site, that of Gazi. However it is not entirely consistent with the earlier tables and may in fact represent a different form, though its general characteristics do conform with those above. It is a rectangular table with a rim, of plain clay, measuring 0.44 x 0.36m (Marinatos (1937) 279,283). Its main difference lies in the fact that it does not have a cupule; instead two holes were pierced through one of the long sides, presumably for draining off liquids. It was found at floor level though with no

reported indications of having been set into it or fixed in any way. The clay it was made of was the same as that of one of the goddess figurines, in front of which it was actually found. It has also been suggested that all the objects stood on wooden stands or that a wooden floor covered the whole area. Apart from the five figurines of goddesses belonging to this sanctuary other vessels were found, which also could have been used for offerings and which may have been related to specific figurines (Gesell (1985) 44).

Conclusions

This piece of equipment, of which very few examples have come from good contexts, is found exclusively in settlement sites, as with the previous type of offering table discussed. It is also almost completely confined to the protopalatial period, and the only one which occurs outside this period is not of the standard form.

It has been argued that the rectangular tables were in fact ordinary domestic hearths and the rooms they were situated in were kitchens (Metaxa-Muhly (1984)); however the cult use of the examples discussed from the sample of sites used here seems very clear from their context. For those examples and fragments which have come from less clear contexts, it is not possible to be so sure of their character.

It has been argued that the rooms they come from are 'peripheral' (*op.cit.* 118) is not in itself an argument against their religious character; nor in fact do they seem to have been peripheral. The Phaistos shrine has an entrance both from within the palace, and, later, along with other extensions and alterations, an entrance from the court was added.

At Mallia (a) a self-contained, apparently independent, tripartite arrangement of rooms had a table set into the centre of the largest room. If this room was a kitchen, what household did it serve, since there is no strong evidence for closely adjoining structure (Poursat (1966) 530; Metaxa-Muhly (1984) 116)? The shrine at Gazi with its slightly different table needs no corroboration, containing as it does five goddess figurines and some tubular vessels: a non-religious use of the table here would be hard to justify. In each of these shrines various types of pottery, though not usually in very large quantities, were found and including shapes, such as fruitstands, not generally consistent with domestic use, nor any great amount of large domestic vessels, which might be expected if these rooms were indeed kitchens.

The decoration of the Phaistos table, including a motif of probable religious significance, cannot be

dismissed, neither can the whole context of associated objects, many of which possess also an independent religious character, such as the stone libation tables, as even Metaxa-Muhly admits (*op.cit.* 118: 'The designation of the units with rectangular hearths as domestic rather than cultic need not mean that no religious activity took place there; evidence for such activity exists particularly in rooms V-IX at Phaistos.'). Is it not therefore more logical to infer from this that the complex of rooms was a shrine with some connected practical activities carried out in the subsidiary rooms, rather than the other way round?

The Mallia shrine (a) contained what have also been called offering tables, or 'fruitstands', which Metaxa-Muhly thinks are braziers comparable with those found in the palace of Phaistos (*op.cit.* 118; Mercando (1974-5) 96-98) except they have no cavity. A function comprehending some of the characteristics of a brazier does not necessarily preclude a religious function and association for these vessels, which all other commentators have accepted as being a form of offering table (Poursat (1966) 532; Gesell (1985) 15,107; Rutkowski (1986) 161).

The other table found at Mallia, also protopalatial, in room I 12 of Quartier Mu, seems again to have a secure cult function, (Daux (1967) 885;

Poursat (1978) 23, (1972) 178-86, (1975) 90; Tiré and Effenterre (1978) 63-66; Effenterre (1980) 180), though it is not included in the sample as the complex has not yet received full publication. This room has a communicating window with an important lustral basin next door (I 4), where together with its anteroom, a plaster table with a cupule and a terracotta offering table were found (Daux (1967) 882; Poursat (1971) 796-97, (1978) 23; Tiré and Effenterre (1978) 63-66; Effenterre (1980) 177). The religious associations of this suite of rooms and their contents would therefore seem to be unequivocal.

Thus the sites where these rectangular tables were found, discussed here, have sufficiently clear indications to be designated as shrines, and the ritual use of the tables in some way would also seem indisputable. The question of the precise manner of this use must be discussed next.

One aspect they have in common is that they were used at floor level in their respective shrines, (though this is slightly less certain for the Gazi example), which must have some bearing on their function. In the protopalatial shrines the tables are actually sunk into the floor, and in a more or less central position in the room, and must therefore have been a permanent feature, presumably in frequent use. Both the tables from the

sites in the sample, Mallia (a) and Phaistos (a), as well as that from Quartier Mu possibly, were situated in the actual shrine room, not in any of the subsidiary rooms which were present in all cases. Therefore it is reasonable to conclude from their position that they were used in actual ceremonies taking place in the shrine and not in any subsidiary role of preparation. Another factor important in determining their use are the traces of fire noted on the tables from Mallia (a) and Phaistos (a). The burning was very evident on the Mallia example (Poursat (1966) 523), and had transformed the earth underneath it also. The evidence of burning was not noted in the original publication of the Phaistos table and was reported by Gesell ((1985) 12) who examined it later; though it does seem strange that Pernier ((1935) 230) who described it in meticulous detail overlooked this relevant fact. No traces of fire have been mentioned regarding the table from Quartier Mu at Mallia, though the final publication of it has not yet been made.

Although this piece of equipment has in the past been called a libation table (Pernier (1904) 409; Pernier and Banti (1935) 230, (1951) 578; Nilsson (1950) 125,Fig.36), the traces of fire indicate rather that they were used for burnt not liquid offerings, or, as Marinatos has suggested, the cooking of meat from sacrificial victims (Marinatos, N (1986) 30 and n.103).

Thus a small fire could have been lit in the cupule and offerings, again in small quantities, were burnt.

The central position and relative prominence of these objects within the shrine rooms would seem to indicate that whatever was burnt on them had itself great ritual importance, and was probably therefore not just incense or coals for heating, for which other equipment exists.

In this way they may have been a form of hearth as Metaxa-Muhly has concluded (*loc.cit.* and Gesell (1985) 15: 'They were probably a kind of hearth'; Marinatos, N. *loc.cit.*), but ones used in the course of religious activities, not domestic. The shape of these tables, a circular cupule set in a rectangular tray seems very specific; domestic hearths were often circular (Demargne (1932); Metaxa-Muhly (1984) 109,114-15; Poursat (1966) 523), though the precise implications of the shape, other than that the vessel was cultic, are not so apparent.

The much later example from Gazi varies in certain details but shares both general shape and material. The major difference, which must have some bearing on its function, is that it does not have a cupule, but two holes pierced through one of the long sides. These could have been for draining away liquid offerings, in

which case it could properly be called a libation table.

The one consistent feature of these offering tables, whatever the nature of the offerings made, is that they are found only in settlement sites; and predominatly in the protopalatial period.

KERNOS

This is the name applied to a class of vessels of a composite nature, which is their essential characteristic. They are made of either stone or clay, which will be treated separately here. Basically they consist of two or more cups or depressions, in some way joined or fixed to a shared base or support. The term obviously allows for a wide variety of forms. The stone ones, also called block vases (Warren (1969) 11-14), are perhaps simpler on the whole, such as those, rectangular in shape, with two circular depressions carved in the top. More complicated forms have more depressions and also more definition of the separate cups. Included in this category is the large circular type with multiple cupules around the circumference, such as the famous example from Mallia XVI 1.

Clay kernoi also cover a range from simpler to complicated forms, consisting of vessels, more separately modelled than the majority of stone types, joined either by means of a ring, fixed to a central stand or placed and fixed on a tray, or by some other means.

The kernos seems to have a long history in Greek religion and a vessel descending from this form and

perhaps of similar function has been shown to have survived into later Greek periods (Xanthoudides (1905-06).

Offering table - multiple cupule (kernos) - clay

Prepalatial	-	
Protopalatial	peak sanctuary:	Maza
Neopalatial I	rural sanctuary:	Kato Syme
	cave sanctuary:	Skoteino
Neopalatial II	-	
Postpalatial	settlement site:	Haghia Triadha (c)
		Palaikastro (d)

Offering table - multiple cupule (kernos) - clay

Relatively very few sites from the sample contained this piece of equipment, in clay, and of these not all are of certain date or conform to a particular shape. The examples come from all types of sanctuary site, in different periods, appearing earliest, in the protopalatial period, at a peak sanctuary, and not in settlement sites before the postpalatial period.

Only single sites of each type, except settlement, were found to contain this kind of offering vessel and it therefore is not a major or important feature of any.

Although no examples of this vessel are reported from any shrine sites in the categories used for the prepalatial period some have been found in tombs where they may have been involved in ritual use (Xanthoudides (1924) 11-12; Nilsson (1950) 133-41).

Protopalatial

The only site in this period at which a possible kernos is reported to have been found is the peak sanctuary of Maza. However it is not absolutely certain as only part was found: a single jug which showed signs of attachment on both sides which could

have been part of a Kernos (Platon (1951) 112-13). The excavator theorised from the shape that at least five such vessels would have been joined in a circle to form a composite vessel.

No other fragments of the vessel were recognised and in fact this was the only reported pottery from this site. The rest of the finds, consisting of clay figurines, female, male and animal were all proto-palatial in date, to which period this vessel is also presumed to have belonged.

Neopalatial I

In this period two sites, the rural sanctuary at Kato Syme and the cave of Skoteino, contained a form of composite vase, though the dating of the examples from the latter site is not certain.

Several vessels of this type came from Kato Syme; all of very unusual form, but which still may be classed as kernoi. The overall shape is that of a large conical cup on a foot, called a chalice (Lembessi (1973) 194, Fig.189a-b). Around the rim and also inside are rows of small tubular perforations in the clay, which, it was suggested, were intended to receive individual grains of wheat. Thus the vessel combined the functions of the communion chalice with those of the kernos.

A number of fragmentary vessels of this type came from the area of the MMIII/LMI building, which has been ascribed a probable subsidiary role in the activities of the shrine. From the same area came parallel examples in stone as well as other clay ones which had varied and ususual added clay decoration.

Little is known about the kernoi from Skoteino. Faure noted an LMI composite vase with cupules ((1956) 96, (1958) 40, (1964) 164) and kernoi were listed, with no additional detail, among the ceramic finds of the excavation by Davaras ((1969) 622).

Another cave, Mamelouka Trypa, not inoluded in the sample, also provided evidence of the use of kernoi in the rituals taking place in cave sanctuaries. Here five kernos type bowls were found, together with a bull figurine, the only other object which probably belonged to the cult. The kernoi themselves, which are unpublished but studied by Tyree, consisted of flat-bottomed bowls which have in their interior either very small cups or receptacles formed by thumb impressions (Tyree (1974) 238-39).

Postpalatial

In this period the kernos first appears in settlement site sanctuaries, and from the sample of sites used here it occurs only in this type of shrine.

In a deposit found in room 44 of block Delta at Palaikastro (d), 44 conical cups were discovered, of which 20 were almost complete (Dawkins (1903/4) 220-22). They all showed signs of having been broken off some support and Dawkins believed this to have been a bowl, a lip fragment of which was also found. Orignally there would have been several kernoi, each consisting of a bowl to which five or six of the conical cups were attached; one such was able to be reconstructed (Bosanquet and Dawkins (1923) Fig.75; Gesell ((1985) Fig.174). Possibly some of the cups were joined together in a different way, as their signs of attachment did not correspond to those believed to be part of the bowls.

It was also thought that lamps would have been lit in the bowl of the kernos, and this was connected with a painted clay perforated cover. Later however (Bosanquet and Dawkins *op.cit.* 90-91) although it was admitted that the dishes may have been lamps it was considered that the cover was not connected to them.

A double vase was found in the same deposit (Dawkins (1903/4) 224; Bosanquet and Dawkins (1923) 91-92) which consisted of two circular containers joined both by horizontal bars between and arching handle above them. The famous circular group of female figures,

probably representing dancers with a lyre player, also was a part of this deposit (Dawkins *op.cit.* 217-18; Bosanquet and Dawkins *op.cit.* 88-90).

The other settlement site shrine with kernoi from this period is the so-called Piazzale dei Sacelli at Haghia Triadha (c). Two were found, both fragmentary, and with no full details of their description (Banti (1941-43) 62). Very few pottery vessels were found in this deposit. A fragment of another kernos, made of small joined dishes, came also from the sacrifical ditch which was part of the same shrine (*op.cit.* 69,Fig.68).

These two sites are the only ones recorded by Gesell in her study of settlement site shrines as containing this type of vessel in the postpalatial period. An unusual arrangement from a shrine deposit at Phaistos not included in the sample could perhaps also fall within the category of kernos, or composite vessel. The exact original context of the deposit is not clear (Pernier (1900) 634-36, (1902) 118,122,126-27; Banti ((1949) 319; Nilsson (1950) 133-34; Gesell (1985) 132,Cat.117) but it seems religious in character. An offering table, reconstructed from fragments, was amongst the deposit which consisted of a rectangular clay tray, decorated with spirals, to which six jugs were attached. Pieces from two other similar objects were also found.

Conclusions

This is a special kind of vessel for which a solely ritual use seems probable, and which took several different forms, with the distinguishing feature in common that each comprised several vessels or receptacles joined in some way. A long history has been traced for this vessel in Greek religion (Xanthoudides (1905-6); Nilsson (1950) 133-41), but the actual number of sites where it was found in the sample used is not great, which makes it difficult to arrive at any firm conclusions about its use and associations.

Examples were found in each of the different types of site used here, but on the whole the kernos does not seem to have been a significant feature of any and was found in only one period in each type.

The kernos from Maza, the only peak sanctuary where this type of vessel has been found, is only suggested from fragments and its exact original appearance is unknown. It seems from the only available evidence to have been the only pottery vessel in an assemblage otherwise made up of figurines. The examples from Kato Syme, very unusual in form, were found inside the subsidiary building, possibly therefore in storage; other pieces of equipment, such as stone offering

tables, were also found in the same building.

The single cave from the sample which contained a kernos was Skoteino, and again details are not available regarding its precise form. It was found among sherds of other vessels of many periods and perhaps all were used as offering receptacles of one kind or another.

The two shrines from settlement sites, both from the postpalatial period, where kernoi were found, are quite different in character. The deposit, therefore modified, from a small room at Palaikastro contained many small vessels which originally, it has been inferred, must have constituted a large number of kernoi. The excavator believed that all the pieces from the objects had been placed in the room after they had already been broken, whether accidentally or deliberately is unknown (Dawkins *op.cit.* 223). If this is so the assemblage is possibly incomplete and has lost its proper architectural associations so that the original character of the shrine cannot be restored. The large number of kernoi belonging to the assemblage is noteworthy and indicates possibly a large variety of offerings being made, though there is no sure way of being certain that they all in fact came from the same shrine, though the assemblage is assumed to be so.

The other settlement site shrine where kernoi were found is the large open-air deposit at Haghia Triadha,

the Piazzale dei Sacelli. Two are reported from the main deposit, though no details are available. The deposit itself was large and varied, including human and animal figurines, double axes, horns of consecration though relatively few other vessels were mentioned. Fragments of another kernos were also found in the elliptical ditch which contained ashes and bones from sacrifices Banti (*op.cit.*) believed that the ditch was used mainly for the sacrifice of animals, rather than the practice, more customary in peak sanctuaries, of throwing votive offerings onto a fire. The kernos may have found its way into the ditch accidentally, or have been part of the ceremonies taking place there, but the evidence is insufficient to be sure.

The examples gathered from the shrines in the sample vary in form, though they share the characteristic of consisting of multiple receptacles, usually interpreted as being for the reception of several different offerings at the same time. Examples were found in all types of shrine and so its seems the practice of offering small, token amounts of probably different substances was common to all, though perhaps the materials offered varied. It is difficult to determine from the circumstances in which they have been found, often fragmentary and disturbed, whether they had specific associations and uses in the different types of

shrine.

This is probably the most complex form of offering vessel, but only one of a range of other kinds, and one which involves a particular method of making offerings, whatever their precise identity was, fruits, grains or liquids. However, from the shrines here studied it is not numerically a very prominent piece of equipment, though possibly other elements broken off such vessels have not been recognised.

Offering table - multiple cupule (kernos) - stone

Prepalatial	-	
Protopalatial	peak:	Juktas
Neopalatial I	settlement:	Mallia (g)
		[Palaikastro (c) ?]
	rural:	Kato Syme
	peak:	Juktas
	[cave:	Psychro]
Neopalatial II	-	
Postpalatial	-	

Offering table - multiple cupule (kernos) - stone

Stone vessels formed of multiple cupules, again taking individual precise forms, have also been called kernoi, or block vases (Xanthoudides (1905-06) 12-14; Waren (1969) 11-14). Two main forms included here are rectangular with a varying number of cupules, and circular with cupules around the edge, though other forms also exist.

From the sample of sites used this particular piece of equipment comes only from sites belonging to the protopalatial and neopalatial I period, and from all types of site, if the libation table with three cupules from Psychro is included in this category. Other examples are known from a previous period, though not always in certain shrine contests, such as the stones with cupules from the prepalatial settlement at Myrtos (Warren (1972) 15,40-41,230-31; Gesell (1985) 7).

Examples have been found from the protopalatial period also, but usually connected with tombs and entrances to buildings, rather than actual shrines (Gessell *op.cit.* 15,n.32). A cupuled stone vessel, actually carved in the base of another stone vessel, an auge, was found in room lambda of Quartier Theta at Mallia (van Effenterre, H and M. (1976) 71-72). This

area has not been fully excavated so an overall picture of the building, its plan and functions is not available. The excavators considered that room lambda, which contained a pillar, was in fact a workshop as they also found there tools and crucibles (*op.cit.* 69-86), though a possible cult activity in the area was indicated by objects such as miniature vases, Chamaizi vessels and an animal figurine (*loc.cit.*). The relationship between the cupuled stone, which the excavators believed to be a gaming table (*op.cit.* 72), the pillar and the other objects however is far from clear, or their exact original locations.

Another cupuled stone was found in the same area at the bottom of a small stair (*op.cit.* 54-55), again at an entrance, and the excavators identified this one also as a gaming board.

Protopalatial

Juktas is the only peak sanctuary where this piece of equipment has so far been recorded. Several were found, in different forms and in different situations. Two, both of rectangular block shape, were found in secondary use in the area of the altar. The first, actually built into the altar in its lowest level, was of greenish stone (0.56m long x 0.37m wide and 0.08m high) and had a central line of five shallow cupules

with rims, and on both sides of these a series of about 100 much smaller depressions (Karetsou (1974) 232 and (1980b) 145). The second, also close to the altar, was found in the side of the pit containing the hoard of bronze double axes, and was inverted, as was the above also (Karetsou (1974) 233,pl.173b, (1980b) 145-46,Fig.13; measurements: 0.85m long x 0.40m wide and 0.07m high). This one had a single central cupule surrounded by rows of much smaller depressions.

Both were in re-use and almost certainly protopalatial, especially the latter, and therefore it is impossible to draw any direct conclusions about where or how they were originally used, but at least it is clear that this type of equipment was in use at a peak sanctuary.

Neopalatial I

The circular cupuled table in room XVI 1 at Mallia (g) is perhaps the most famous example of this type of ritual equipment (Chapouthier (1928) 292-323; Chapouthier and Joly (1936) 15-18; Nilsson (1950) 106-07; Pelon (1980a) 23,134-35; van Effenterre (1980) I:61-63, II:326-28,341,449). It is situated in a room directly on one side of the Central Court and which otherwise contained only a bench; Gesell ((1985) 105) includes it therefore amongst the category of bench

sanctuaries. Its classification as a room for ritual purposes rests both on the presence of the table and on its relative position to many other rooms of cult use on this side of the court (VI 1, VII 4, XVIII 1); unfortunately however there is no assemblage of objects associated with it.

The table itself has a diameter of 90cms and was very carefully worked to produce a central cupule surrounded by five rings and 34 smaller cupules around the circumference, one of which being slightly larger and extended into a lip. The whole was firmly fixed in the ground and obviously was a prominent and permanent feature of the area.

An object described as a 'trough with thee cup-like depressions' was found amongst a small assemblage of apparently ritual objects in a small room, 42, in house B at Palaikastro (c) (Bosanquet (1902-03) 289). No further details are known but it may have been a form of offering table and is mentioned here as it possessed several cupules but does not seem really to fall within the present category.

Other cupuled stones were found both at Mallia and in other locations (Gesell (1985) 38n.93 gives a list), though no cultic associations can definitely be attached to many. For instance, one found in the Queen's

Megaron at Knossos (Evans (1930) 390-95,Fig.261) which Evans believed, along with others of the same type, to be a gaming table.

One rural sanctuary in this period, Kato Syme, included kernoi, of unusual form, amongst the ritual equipment used there. One type, of which more than one example was found, consists of a small, round stone table with a central cupule surrounded by a ring of holes which actually penetrate through the rim (Lembessi (1975) 322,pl.252a). These vessels, one whole and four others fragmentary, were found inside the multi-roomed building belonging to this period which is believed to have played a subsidiary role in worship at the shrine. Although these particular examples do not conform exactly to the usual type of kernos, as instead of cupules there are holes, the excavator does include them among the vessels known as kernoi (Lembessi (1981b) 18).

From the same site comes another vessel which again can be included in this category though it also has a very unusual form. This has the overall shape of a large conical cup or chalice, but has a ring of small receptacles around the body about half way down. It has clear parallels with the very similar vessels in clay mentioned in the previous category, though the aditions are slightly different. Like both the clay examples of similar shape and the other stone kernoi

mentioned above, this one too came from a room inside the building, where it seems large quantities of ritual vessels were kept.

Juktas has also produced evidence of the use of kernoi at a peak sanctuary other than the two in re-use. In room 1 of the wing of rooms believed to have had a subsidiary role in the worship at the shrine were found a votive kernos (length 0.034; width 0.019m; height 0.012m) and an alabaster one consisting of three joined bowls (Karetsou (1980a) 34 and (1980b) 147,Fig.23). This latter kernos was in a comparable situation to those found at Kato Syme, that is not in the area believed to have been the scene of the actual cult ceremonies but inside rooms where they were possibly stored when not in use. Also at this site in the area just to the north of the rooms was reported (Karetsou (1980a) 349) a square serpentine offering table which preserved three cupules and thus was also a kernos, but more details and the date of the object are not available.

One example of this category of vessel came from only one cave in the sample and it is not of the standard type and is in fact usually classed as a stone libation table, but since it has more than one cupule it may be mentioned here. This is the famous table from Psychro (Evans (1897) 351; Demargne (1902) 581; Evans

(1921) 625-30, (1935) 157,n.3; Caratelli (1957) 165ff.; Boardman (1958) and (1961) 63-64,66; Brice (1961) 12,no.11; Warren (1969) 67) which has an unusual form with three shallow bowls carved into the flat top of the table. This vessel will be dealt with in more detail in the section on stone libation tables.

Conclusions

It is difficult to draw many firm conclusions about the use and associations of this piece of equipment, both as numbers are so small and because there are such great variations in size and form. It does seem however that its use was not confined to any one type of site, as was also noticed for the clay versions, since one site of each type contained an example, if the one from Psychro is accepted. The chronological distribution is more limited, from the sample of sites used, with almost all examples dating to the neopalatial I period.

The example from a settlement site, Mallia (g), comes from a primary context but no other objects were found in association with it to help determine how it was actually used or what activities surrounded its use. Its religious character has been assumed from its position and careful and very special appearance. Its use has been deduced as an offering table which received

offerings of first fruits and tokens of all products resulting from all activities connected with agriculture (Chapouthier (1928) 306-12).

Two of the kernoi from Juktas were found in positions of secondary use, built into the lower level of the altar and its immediate area, so that it is no longer possible to determine their original use and position. The third, smaller, was found in one of the rooms which had auxiliary functions, as is also the case with those from the rural sanctuary at Kato Syme. At both sites the rooms also housed various other ritual vessels, many also offering vessels, which perhaps were being stored while not in use.

The examples here seem to have little in common, in position, associations, or appearance, to allow a definite pattern of use and significance to emerge, beyond the fact that they are all multi-receptacle stone vessels which were probably used for the purpose of making several different, token offerings at the same time.

Offering table - stone, single cupule

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
		Phaistos (a)
		Phaistos (b)
	rural sanc:	Archanes-Anemospilia
	peak sanc:	Juktas
		Traostalos ?
Neopalatial I	settlement:	Knossos (b)
		Knossos (g)
		Knossos (h)
		Mallia (i)
		Mallia (j)
		Mallia (k)
		Phaistos (d)
	rural sanc:	Kato Syme
		Rousses
	peak sanc:	Juktas
		Kophinas
		Petsophas
		Traostalos
		Vrysinas
	cave sanc:	Patsos

		Phaneromeni
		Psychro
Neopalatial II	settlement:	Knossos (j)
Postpalatial	settlement:	Kannia

Offering table - stone, single cupule

This category is by far the most ubiquitous form of special offering equipment considered in this study; pottery bowls and cups may be more numerous and could be used for similar purposes but are usually indistinguishable from domestic versions and their function is not so specific as the stone libation table, a form well recognised and categorised (Warren (1969) 62-68). Equally important the stone offering table is numerically, by site, one of the most commonly occurring categories of equipment, and also in the absolute number of examples found at a single site it is very important. For instance, at Kato Syme alone it has been estimated that up to 400 libation tables of steatite and limestone have been recovered so far (Metaxa-Muhly (1984) 125) and at Juktas the examples number approximately 260.

This prevalence seems remarkable for a category of vessel of special form and apparently for ritual use only. Their special cult significance is further emphasised by inscriptions in Linear A, which frequently consists of the so-called Libation Formula (Davaras (1972) 105-112). It is now also thought, due to the number found in fragments, that these stone vessels

were sometimes deliberately broken at the end of the ceremonies in which they had been involved, which perhaps marked their being offered themselves to the deity (Davaras (1981) 3; Karetsou (1984) 114).

This type has been defined and discussed by Warren ((1969) 62-68) including the variations that can occur. Miniature forms are quite frequent, at Juktas in particular, which must themselves be votive. The close and specific religious associations of this category of vessel are therefore assured by several factors. Their presumed function, as the commonly used name of libation table implies, is for the making of offerings and libations.

Chronologically this type of stone vessel appears first in a shrine of this sample in the protopalatial period and continues in use through the neopalatial I and into the postpalatial periods, though in noticeably smaller numbers. The type itself however begins possibly in EMIII (Warren *op.cit.* 62) with an example from Koumasa, though it may be MMI.

Examples have been found in all site types in different proportions, though a definite bias towards any one is not easy to discern. They appear in settlement and rural sites in each of the three chronological periods in which the type occurs. None have so far come from cave sanctuaries in the earliest,

nor in peak sanctuaries in the last period, though it is possible that some were still in use at Juktas; this may to some extent reflect the relative popularity of these types of site in the respective periods. One interesting fact in connection with peak sanctuaries is that this piece of equipment seems in fact more common in the neopalatial period, and not so much the protopalatial which is usually considered as the period of their greatest popularity.

Protopalatial

Three of five settlement site shrines from the sample contained stone libation tables, one from a modified deposit at Mallia, and two from primary shrines at Phaistos.

An interesting deposit from Quartier Mu at Mallia (b) contained a stone libation table, together with other stone vessels and figurines. Although this assemblage is not yet finally published in detail, the categories of objects involved are known and so it is included in this study. The deposit centred around V5 and V6 in building B and had probably fallen from a shrine on an upper storey, the contents of which must have been rich and varied, indicating that it was an important sanctuary (Poursat (1980) 26,41-49,61-62,85,100-109,133-46,179-80,193,232-33). The libation

table itself (*op.cit.* 62) is of a type comparable to those found in the contemporary shrines at Phaistos and the Temple Repositories from Knossos, that is of a box-shape on a small foot with a deep-cut internal cavity.

Several examples came from the West Court sanctuary at Phaistos (a), including some very fine decorated ones. In the shrine room proper, room VIII, one of serpentine was found (Halbherr (1904) 480-81; Pernier and Banti (1935) 227-28; Warren (1969) 63) which was basically square with a circular bowl inside and cut off corners. It also had incised decoration including facing triangles and rosettes, all filled with red paint. From the corridor between rooms VIII and IX came another interesting example, again square with incut corners and an inside deeply hollowed, of chlorite. This time the incised decoration is of doves (Pernier (1907) 287; Pernier and Banti (1935) 235-38; Warren (1969) 63). Another small and square libation table without incised decoration was found also in room VIII (Warren (1969) 64). Two more, quadrangular with rounded corners, were found in room VI, a subsidiary room (Pernier and Banti (1935) 221-22; Warren (1969) 63).

Other forms of offering vessel were found in the same sanctuary too: in room VIII was a clay rectangular table in the floor as well as a circular one on a high

cylindrical foot. This latter type was also found in room VI.

Several examples came also from the shrine room LV at Phaistos (b). Two were found in a compartment, both square with circular dishes. Another, of similar shape with cut off corners and white inlayed decoration on the corners of the top surface, was found on a bench in the same room (Levi (1976) 99,101, Fig.46). This room contained many interesting objects which included two rhytons and much pottery, as well as stone vessels of other shapes. From a nearby room which may or may not have been connected to the shrine complex another libation table was recovered of greyish marble and of octagonal form (Levi (1952-54) 412 and (1976) 81-82).

A single stone libation table is reported from one rural sanctuary of this period, Archanes-Anemospilia. It is described as quadrangular with a deep cavity and raised collar and made of steatite (Sakellarakis (1979) 381). It was found in the eastern room of the temple still standing on the lower level of a stepped bench, possibly an altar, which ran across the back wall of the room. A large amount of pottery vessels of different shapes and sizes also came from this room which the excavator suggested was for bloodless offerings (*op.cit.* 351).

Of the peak sanctuaries in this period several had stone libation tables amongst the equipment present, though the dating is not always secure. For instance, Juktas has produced a large number of these vessels, both full-sized and beautifully carved miniature versions. Many come from mixed contexts and have not yet been precisely dated on typological grounds, though some do seem to belong to the old palace period (e.g. Karetsou (1978) 247), but probably fewer than those dating to the next period.

Stone offering tables were also found at the peak sanctuary of Traostalos; dating is impreceise and difficult in many cases, though again some may date to the old palace deposits (Davaras (1967) 102, (1978) 393). A similar situation exists also at Vrysinas where such tables have been recovered, however here many do seem more likely to belong to the next period (Davaras (1974) 212).

Neopalatial I

There seems to be a definite increase in the use of stone libation tables in this period, and they occur for the first time in cave sanctuaries. Seven settlement sites of a possible 27 (of which 9 are modified) contained examples of this category, not as large a proportion of the total as with other site

types.

The west cist of the Temple Repositories at Knossos (b) contained, among many other objects, four small square libation tables (Evans (1902-03) 41 and (1921) 497; Warren (1969) 63) with the central circular dish edged by a raised rim. The contents of these repositories, which seem to have been the deliberately buried assemblage from a shrine no longer in use, were rich and varied, including the faience figurines, probably of a divine character. Many of these objects were decorative or votive; equipment for making offerings, apart from these four tables, possibly included some strange cylindrical objects of a gritty paste-like material, the upper surfaces of which had been hollowed to form shallow bowls (Evans (1921) 497). Faience vessels, many beautifully decorated, came mostly from the eastern cist and may also have been offering vessels.

A small shrine on Gypsadhes Hill, Knossos (g), on a much simpler scale, and which had been disturbed by ploughing, contained a limestone offering table of pedestalled form. Several conical cups inverted on the floor may have covered offerings; the only other object found here was a triton shell (Hood (1957) 22; Warren (1969) 65-66).

A neopalatial deposit found in a building north of

the Royal Road, Knossos (h) and probably fallen from an upper storey, included two rough stone offering tables (Hood (1961-62) 27 and (1962) 260; Warren (1969) 64,67). One is small and square with a square-cut interior, and the other has a roughly circular bowl. In the same deposit and presumably therefore part of the furnishings of the same shrine were pottery rhytons and a small pair of horns of consecration, as well as a range of pottery vessels, many richly decorated.

Three shrines from the sample at the site of Mallia included these offering vessels amongst the range of equipment used; all were from outside the palace itself, two being in the same house.

The first was found in a lustral basin, room IX, of house E, Mallia (i). This in fact seems to be the only instance of stone libation tables being found in association with a lustral basin (Gesell (1985) chart VIII,p.149 has only this site too). It is unfortunately incomplete but is square in shape and rests on four small feet, with a circular central cupule and a groove running round the four sides (Deshayes, J. and Dessenê, A. (1959) 236; Warren (1969) 66). The only other associated objects were a miniature stone lamp and several bronze objects; while the basin itself was of the usual form except for two niches (Bequignon (1931) 514-15; Deshayes, J. and

Dessenne, A. (1959) 101-105,135-36,144).

In the same house room XXXVIII is also considered to have been a shrine: Mallia (j). It was here that a strange sunken basin, filled with ashes, was situated and a stone tripod table found (Deshayes, J. and Dessene, A. (1959) 110-12,124,147; van Effenterre (1980) 448). A stone offering table also belongs to the assemblage from this shrine, consisting of a square steatite vessel on a circular foot.

On the eastern border of the same house is a shrine room in an area which had been used in many phases so that ascertaining the precise original shape and plan of the building as well as its floor was not possible; this is room II2, Mallia (k) (Pelon (1970) 39-53,59-61,67; van Effenterre (1980) 447). Amongst the cult equipment found in the area was a fragment of a stone libation table, the original form of which would have been square with a raised edge and a central cupule (Pelon *op.cit.* 50,p.xiv 1a and XL 5). The room was furnished with a probable masonry altar and also contained an auge, perhaps also a form of offering table, an abundance of small plain cups and many small objects. The libation table was found together with the cups, loom weights and a neolithic stone axe near the auge (Pelon *op.cit.* 41). Although no actual floor was found a general ocupation level was recognised in

the area which included ashes, fatty earth and animal bones which could have resulted from sacrifices, though this is not certain. If such activities did produce this layer it presents a conmparable situation with the nearby shrine mentioned above, room XXXVIII, Mallia (j), where a libation table was discovered in proximity of a feature containing ashes.

Finally three stone offering tables were found in a neopalatial shrine at Phaistos (d). The shrine consisted of four rooms, 8,9,10,11, of which room 8 where the vessels were found was probably a storeroom, therefore level 3. The three tables were all fairly similar, being square with a stepped incut base (Pernier (1902) 42; Pernier and Banti (1951) 107-109). A stone ladle, a form also usually considered as cultic, was found in the same room.

Both the rural sanctuaries in the sample for this period contained stone libation tables. At Kato Syme they occurred in very large numbers: it has been estimated that nearly 400 libation tables, made of serpentine or limestone, have been found at the site so far (Metaxa-Muhly) (1984) 125). They have come from many areas and levels of the site, which are often mixed, frequently in fragments, possibly deliberately broken, but also whole examples came from the MMIII/LMI building (e.g. Lembessi (1973a) 194-5,

(1976a) 406, (1977a) 406,407), some still in position on benches. Dating is not always specified but many seem to belong to this period, and several have Linear A inscriptions (Lembessi (1973a) 195, (1973b) 119, (1974a) 222, (1975a) 327, (1975b) 172,174, (1976a) 401,404,406, (1976b) 179-80,183,184, (1977a) 406,415,417, (1981a) 395, (1981b) 17,18, (1984) 101, (1985) 100-101; Metaxa-Muhly (1984b); Catling (1985-86 89).

The main shapes seem to be square or round and miniature versions were also found (Lembessi (1984) 98). Also from this site is a composite stone offering table made of three parts, treated in detail in the next section, the top part of which was in the same style as the square offering tables here. The discovery of a stone blank, possibly for this type of offering table, and numerous stone cores has led to the suggestion that these and other stone vessels were produced locally, perhaps even in a workshop within the shrine area itself (Lembessi (1984) 100), a situation with parallels in the settlement site shrine at Zakros where a stone workshop was situated in the same area (Platon (1971) 129).

Stone libation tables were also a part of the equipment of the other rural sanctuary of this period in the sample used, Rousses. Here two were found in

room Gamma, in what the excavator thought may have been their original positions, one approximately in the centre of the room, and the second in the northwest corner. One was only half preserved and had a low rectangular shape and would originally have stood on four feet; the other had a similar form but was standing on two rod-shaped feet and was restored from many fragments (Platon (1957a) 146; Warren (1969) 66). In the same corner as the second table were two jugs which, it was suggested, were used to pour the libations on the tables.

The room where they were found was the innermost of the shrines and offerings, apparently of liquids, seem to have taken place here. In an adjoining room, B, was a layer of ashes in which were placed many inverted plain conical cups, perhaps covering solid burnt offerings.

As mentioned above some of the stone offering tables found at peak sanctuaries may have belonged to the protopalatial phase of their use, however for most a neopalatial date seems more applicable and so this is the period of the greatest use of this piece of equipment in peak sanctuaries as at other site types also.

The worship at all five peak sanctuaries with

clear evidence of cult activity in this period in the sample involved the use of stone libation tables. These five sites are also in fact the only peak sanctuaries in the sample where the libation tables were found in any period and it is from among them that the possible earlier pieces come also.

A large number have been excavated at Juktas in recent years, both full-size and in miniature, votive versions: about 260 examples, both whole and fragmentary (Karetsou-Mycenaean seminar 20/5/87). Some, including miniature ones, were found on or near the neopalatial stepped altar (Karetsou (1974) 232 and (1980b) 146). Many were incised with characters of Linear A (Karetsou (1974) 236, (1975) 337, (1977) 420, (1984) 113-14, (1985) 87). The larger tables were most commonly of serpentine, though other materials were used, such as marble (Karetsou (1975) 337). This last table was only half preserved but is very interesting for its engraved decoration showing a stepped structure, possibly an altar (*loc.cit.*).

Some of the examples were found in rooms of the neopalatial building (Karetsou (1976) 415) and many came from mixed pyre layers (Karetsou (1977) 420) and along terrace III (Karetsou (1984) 113-14, (1985) 86). One was also found in the temenos wall surrounding the site (Karetsou (1979) 281, (1979b) 30, (1981b) 151).

These offering vessels were therefore found in most parts of the site, and this, together with the very large numbers, indicates the ritual importance of this type of vessel.

Fragments of stone libation tables were found at Kophinas though precise details are not available (Davaras (1961/2) 287,288, and (1963) 384). The majority are reported as coming from inside the peribolos at the site, an enclosure within which a black layer from sacrifices was confined. Some others were found elsewhere at the site, which also were the areas where the votive offerings, of human and animal figurines, were most numerous. Perhaps therefore the tables were more involved in the ritual connected to whatever was offered inside the enclosure, involving fire, and then themselves were deliberately broken.

Petsophas has produced several stone libation tables, some with Linear A inscriptions. It was the mostly fragmentary condition of the vessels from this site which prompted the theory that they were intentionally broken for ritual reasons, as had previously been suggested for the clay votive offerings (Davaras (1981) 3), and that they were perhaps only used once.

No stone vessels were reported from the first excavations at Petsophas (Myres (1902-03) 356-87)

perhaps partly because they were concentrated in fresh areas explored only in the more recent excavations, and also due to their fragmentary state. Stone libation tables with Linear A inscriptions had however occasionally been reported as coming from the Palaikastro area, and were probably in fact from Petsophas, including one apparently found by Xanthoudides actually on Petsophas (Bosanquet and Dawkins, (1923) 142-43; Brice, (1961) 13,14,15,17,112,116; Warren (1969) 65-66). The new investigations showed that the majority of the area covered by the shrine remained unexcavated and produced abundant finds. Amongst these were many fragments of stone libation tables (Davaras (1981) 3) including five with Linear A inscriptions (Davaras (1972) 652, (1972) and (1981)). Most, if not all, of the vessels from this site seem to be of serpentine and of the usual square or round forms (Warren (1969) types 6 and 7, though the examples found earlier, probably from this site, all belong to type 4).

Stone vessels including offering tables also came from the peak sanctuary at Traostalos (Davaras (1967) 102, (1978) 393). One of these was found placed upside down in the south room of the shrine building, which was probably built in LMI.

From the excavations at the peak sanctuary of

Vrysinas are reported fragments of libation tables, one of which was the corner of a square vessel preserving several signs in Linear A (Davaras (1974) 211; Davaras and Brice, (1977) 5-6). None are reported as having any particular find context, but were presumably from the same area as other objects from the site, which included many hundreds of animal figurines and human figurines. Other cultic vessels for liquid offerings were double-headed bull rhytons.

Three cult caves from this period contained stone libation tables amongst the cult equipment present: Patsos, Phaneromeni and Psychro. These are the first occurrences of this piece of equipment in cave sanctuaries and none are found in them after this period either (Tyree (1974) 12-13,101). There is also a very small offering table from Eileithyia Tsoutsouros, which Tyree believes to be of MM manufacture but deposited in the cave in Geometric times, though Faure and others consider it to belong to LMIII, which is the earliest date of any of the objects found in the cave (Faure (1963) 502, (1964) 90-94, Alexiou (1963a) 310-311; (1963b) 397-8; Daux (1965) 884-86; Tyree (1974) 31-33,218-19; Rutkowski (1986) 71).

A single example was found in the cave of Patsos. It seems probable that this vessel was found along with other objects reported by Halbherr as coming from this

cave (Halbherr (1888) 913-16) but was not published there. It was mistakenly illustrated as part of a Roman inscription found in the cave, and later received detailed publication (Warren (1966) 195-96, (1969) 65). It is of a box form and made of limestone; one side has a rough engraving of a ship. Other tables of this type belong to LMI, and sherds of this date have been collected from the cave (Hood and Warren (1966) 186) though the majority of objects published from here seem mostly of LMIII date.

It was reported that three stone offering tables were found in the cave at Phaneromeni (Marinatos (1937) 222), but unfortunately they have never been published beyond this, though an LMI date seems probable as this is the period in which this type of vessel is in use in cave sanctuaries, and some of the bronze male statuettes found in this cave are also tentatively ascribed to this date, though blades and double axes may be slightly later (Marinatos (1937) 222-23; Faure (1964) 160; Tyree (1974) 12-13).

The greatest number of stone libation tables from a cave sanctuary were found at Psychro, including amongst them the famous table with three cupules, in which feature it differs from all other examples discussed in the present category as they all have only one, but which is included here as it is usually

classed as a libation table.

The total number of libation tables from the cave is uncertain, Hogarth reports fragments of about 30 (Hogarth (1899-1900) 114, pl.XI) and Warren details several (Warren (1969) 64-65,67) of different materials and forms: serpentine and limestone; low flat tables, box-shaped and circular on a foot. One has inscribed on three sides a trident, a star and possibly a branch (Boardman (1961) no.272, p.64-65; Warren (1966) 196). Another two tables may also have inscribed signs, the meaning of which is uncertain.

The large offering table, with an inscription in Linear A, is well-known and its exact original shape and complete form much discussed. Three fragments of it exist, two acquired by Evans, and one found in the cave by Demargne (Evans (1897) 350-58; Demargne (1902) 581). It is made of serpentine and is rectangular with four small feet at the corners, and one circular foot in the centre. The underside was left quite rough while the upper surface was well-carved to form three cupules (Evans (1921) 625-30; Cåratelli (1957) 165; Boardman (1958) 11-12, (1961) 270, p.63-64; Warren (1969) 67). Evans restored it as being supported by a tall central pillar, possibly even a baetyl, and four corner legs. This restoration has however been disputed and an alternative suggested that it was not

much different than as preserved, only with the corner legs somewhat longer (Warren (1969) 67). Demargne found a fragment of what probably was a similar table, though with only one cupule (Demargne (1902) 582).

All the libation tables in the cave at Psychro came from the upper part of the cave and mostly in the area of the masonry altar in the northwest bay (Hogarth (1899-1900) 114; Boardman (1961) 63). Their use would therefore seem to be closely associated with the ceremonies surrounding that piece of cult furniture, presumably in the offering of a variety of substances. Boardman suggested that the box-shaped examples were actually sockets for lamps or torches (*loc.cit.*), but Warren ((1966) 195; (1969) 65) has discounted this. Ashes were found in the same area of the cave, which may have produced the signs of burning on them, and which demonstrates that the offering tables were used in association with possibly sacrificial rituals.

Neopalatial II

The stone vase deposit found in the Central Shrine Area of the palace of Knossos (j) contained, amongst many beautiful and remarkable vessels, a limestone libation table which was square with a moulded base (Evans (1899-90) 30-32, (1928) 820-26; Warren (1969) 62,66). The shrine area dates to the final period of

the use of the palace of Knossos in LMII/LMIIIA1 and Warren considers that the libation table was actually made in this period (*loc.cit.*), though the other vessels with it are MMIII-LMI. This series of vessels apparently had fallen from above and Evans believed that they had derived from a treasury belonging to a columnar shrine, and this wealth of fine stone ritual vessels finds a parallel in the previous period in the shrine treasury at the palace of Zakros (a), though there were no libation tables in that collection.

Postpalatial

One one site of this period has been found to contain this type of offering vessel; this is the settlement site shrine of Kannia. In room XV a limestone table was discovered of a box-shape on an incut base (Levi (1959) 240; Warren (1969) 65). One side was engraved with a row of horns of consecration, and it was also reported that it was engraved with 'lettere minoiche' on another. Its shape and the carved decoration do allow comparison with the table from the cave of Patsos and Warren has suggested that it may be an LMI survival ((1966) 196; Gesell (1985) 51), though it may also be LMIII; its use in the shrine in that period is certain as it was found among a range of other equipment.

The room it came from was furnished with a bench and also contained a goddess figurine, a tubular vessel, an incense burner and other pottery vessels. It may have been itself a small shrine room, one of several in the villa, or possibly a storeroom, it is not certain.

Another libation table, of a different shape, came from room V of the same complex. This had an unusual octagonal form with a circular cupule. Although the precise shape it takes is unusual it fits into the general category of small, square tables (Warren (1969) 64). It was found upside down on the north bench of the room, together with a birds nest bowl. There were two benches in the room and a sort of hearth. The richness and variety of the contents of the room as well as their strong ritual character suggest that it was probably a shrine room proper. These objects include one goddess figure and fragments of several others, a male figurine, two snake tubes, a plaque with spinxes, a triton shell, an animal figurine and pottery vessels.

It is possible that some of the abundant libation tables from the rural sanctuary of Kato Syme and the peak sanctuary of Juktas, many from mixed levels including postpalatial objects, may well have been in use in this period, though none so far have been found

in fixed, datable contexts to prove this. It is also possible that though they were of earlier manufacture they have have been in secondary use for building material for instance, as was the case with the foot of a Minoan libation table built into a Late Geometric altar at Kato Syme (Lembessi (1972) 196).

Conclusions

The single cupule stone offering vessel, or libation table, seems to be the most preferred form of specifically offering vessel. Its ritual associations and importance are emphasised by the fairly frequent presence of Linear A inscriptions, and the fact that miniature, votive forms are also found. The use of this type of offering vessel is fairly widespread, by site type and period, though they do not appear in prepalatial shrine contexts.

It is hard to distinguish a predominance of any particular site type especially when taking into account the variations in actual numbers of sites in each category in each period.

They do seem to be present in settlement sites in more periods, though not a very great proportion of possible shrines in each, than other site types. However they are also a significant feature of other

site types - three of five rural sanctuaries, in all periods, all peak sanctuaries in the neopalatial I period, and three of seven cave sanctuaries at the same period, and often in much greater numbers than are found at individual settlement sites, where usually only one or two are found.

In some cases these vessels have been found in association with the use of an altar feature of one type or another. In the protopalatial period a stone libation table was found in room VIII at Phaistos, which was furnished with a bench which may have formed an altar, as also room LV at Phaistos, though the interpretation as an altar is even less certain in this case. At the rural sanctuary of Archanes-Anemospilia in the same period one of these vessels was *in situ* on the bottom step of a probable altar construction.

In the neopalatial period two of the shrines (Knossos (b) and (h) are deposits and therefore their architectural contexts and associations are lost. Of the others one, Mallia (1), contained what may have been a masonry altar. Stone libation tables were clearly associated with this type of altar in one cave sanctuary, Psychro, where they were found in quite large numbers around it. Libation tables were found in association with benches again in the postpalatial period in the villa at Kannia, which may in part at

least have served the function of altars. In all these cases the supposition may reasonably be made that these stone vessels were used in making offerings at the altar, and that they were important pieces of equipment in such rituals. At some shrines also these stone libation tables were certainly bound up with ceremonies involving fire, probably as part of sacrifices and the resulting offerings (Metaxa-Muhly (1981) 339 *non vidi* ; Marinatos, N. (1986) 32). For instance at the peak sanctuaries of Kophinas and Juktas, and probably others though the connection is not so clearly stated, and at the rural sanctuary of Kato Syme, these vessels are found in pyre levels together with votives which have not perished, though probably whatever was actually offered in the libation tables has. The vessels themselves, as has already been noted, then seem to have been broken, in which way they were perhaps offered or dedicated to the divinity, after being used only once possibly.

The association with ceremonies and fire and sacrifices is not confined only to peak and rural sanctuaries. In the Temple Repositories at Knossos (b) libation tables were found and above them was a layer of black greasy earth (Evans (1921) 496). At Mallia two shrines, (j) and (k), ashes have been found in the same rooms as stone libation tables, and at Kannia room V contained both a stone libation table and

a hearth. The situation is found at caves also, as at Psychro. The stone table from Patsos did show strong traces of burning (Warren (1966) 195) and so again may have been involved in offerings connected with fire.

This piece of equipment seems therefore to have been used in all the different site types and their different contexts, but with the overall apparent intention, from the shape and associations, of making offerings. The presence of stone libation tables in all types of sanctuary, sometimes in very large numbers, suggests that they were a basic requirement for rituals in all, for offerings possibly in connection with sacrifices. The libation table, a name often used though it seems likely that they could have been used for solid offerings also, is a special form of equipment, the cult use and associations of which seem assured. Its appearance alone at all the site types does not necessarily imply an exact similarity of ceremonies and ritual acts, though there are parallels in the contexts and assemblages they are found in, such as a connection with altars and with the use of fire. The act of offering to a deity(s) is perhaps one which might be expected to take place at shrines of all types; it would be very useful to know what materials were being offered, though unfortunately this is usually not possible.

Offering vessels-clay and stone-other shapes

There are a few clay and stone vessels which, due to their unusual form or certain significant features, have been classified as offering vessels, but which do not fit into any of the categories of clay and stone offering vessels already considered, and in fact often display individual and unique characteristics. This small category also includes those examples which have not been fully published or described so that their actual form is uncertain and they therefore cannot be included in any of the specific categories.

These vessels are brought together here, in a very heterogeneous category, as, despite their physical variety functionally they all were involved in the process of making offerings. All would otherwise have to form individual categories; here at least, by juxtaposing these unusual vessels it is possible to see the range of shapes which vessels serving essentially the same function might assume and the very individualistic character which informs many aspects of Minoan religion.

Protopalatial

From the rural sanctuary at Archanes-Anemospilia

come different possible examples, the precise details of which are not yet available. From the antechamber, amongst many other vessels, was reported the finding of a clay portable altar with incised decoration, with no additional information, but which may have been a form of offering table. Also in the same area were large shallow trays of fine clay with rims; the fragments of these trays were found in the west end of the vestibule in the same distribution as quite a large number of animal bones, which suggests that these remains, possibly of sacrifices, were being carried in the clay trays (Sakellarakis (1979) 354). While neither of these above instances is specific or very detailed, there are indications that the vessels were some kind of clay offering vessel and do not belong to any of the more closely defined types. Both were found in the same subsidiary room of the shrine, though they may have been there only temporarily.

Neopalatial I

Two similar stone vessels from shrines at Mallia may, more certainly in one case, have served as libation tables of a form which does not conform to the other categories defined. One is neopalatial and the other is in fact protopalatial but they are dealt with together here as their form is similar and the later

example provides much clearer evidence for the use of the earlier.

In room II 2 on the eastern border of the neopalatial house E (k) a block of ammouda, carved with two large hollows on its upper surface, was found on top of a small wall doubling the main wall of the room and of which it occupied the whole width. One cavity was almost ellipsoidal, and the other rectangular and although the whole was fairly rough was carefully made (Pelon (1970) 40-41, 45-47; Treuil (1971) 18). The excavator discounted the possibility that this auge or gourne was in secondary use as building material and believed that it was in primary use and that the same red fatty earth mixed with carbon found in the occupation level of the room was also concentrated around the height of the gourne. In this layer were many cups of the type often found asssociated with shrines, and probably use for offerings.

Gournes such as this one with two cavities seem to have been fairly common at Mallia only and have been studied in detail (Treuil (1971); and Poursat (1966) 529, n.2; Pelon (1966) 568-72), though their precise function is still not clear. They may, in domestic areas, have served practical purposes, but in this shrine area it may be conjectured that this particular auge or gourne, with the peculiarity of having two

cavities of different shapes, served as a piece of cult equipment and probably an offering table.

A very similar stone vessel, an auge or gourne, also with one circular and one rectangular cavity, was found in close relation with another Mallia shrine, this time the protopalatial independent shrine (a) (Poursat (1966) 518,529; Treuil (1971) 20). It was situated outside the shrine, built into a small wall across the end of the passage leading to the shrine entrance. No objects were found associated with it, and although it seems likely that its use was cultic its precise significance is uncertain as the excavator admitted. It may have been connected with the system of entry into the shrine.

A room in a neopalatial shrine at Phaistos also contained what may be a type of offering table, again stone. In room 10 of the four-roomed complex (d), which was probably the shrine room proper, a rectangular limestone tray was fixed into the east end of the south bench (Pernier and Banti (1951) 111-12, 583). It was finely worked with a raised rim all round which projected out into a lip in the middle of the outside long side. Again its precise use is uncertain, but an identification as a libation table for the offering of liquids has been suggested as it is situated in such a prominent position in the actual shrine room. There

are no exact parallels for such a shape in position in a bench, though a similar function has been postulated for the clay rectangular tray with two small holes found at Gazi belonging to the postpalatial period.

There are important differences between this one from Phaistos and the class of rectangular clay tables since most of these had a single cupule and were sunk into the floor, whereas the present example was set into a bench above floor level, probably to facilitate the pouring off and collecting of liquids. On the opposite wall to this bench was another and between it and the doorway to room 11 was a gap where a collection of pottery vessels was found including what may have been a special libation vessel or form of rhyton. This was an amphora which had a hole right through its base so that liquids would have passed straight through; perhaps the use of this vessel was in connection with the libation table on the facing bench.

A small assemblage of apparently ritual objects from room 42, house B, at Palaikastro (c) included what may have been an offering table consisting of a trough with three cupules (Bosanquet (1902-03) 289), though no further details are available. It was found together with a miniature pair of horns of consecration and two pieces of stalactite. It seems appropriate to include this here (rather than kernos) as its exact form is so

uncertain.

A rural sanctuary of this period, Kato Syme, has also produced probable offering vessels of unusual form, including those mentioned already which fall into other categories, such as kernos, but which also have some peculiarities. A fragment of a clay square table of offerings was reported but with no further details, from one of the rooms of the building, though it was probably not *in situ* (Lembessi (1976) 401). Amongst the very numerous stone offering tables was one of an unusual form, which may have been part of a larger composite vessel and which came from the neopalatial layer of sacrifices around the monumental platform among other stone offering vessels (Lembessi (1985) 74-75). It consists of a rectangular steatite block, with a projection on top and bottom. The excavator has reconstructed it as the central joining section of a complex offering table made up of a small column with a socket on top, and a rectangular stepped libation table with a socket underneath (*op.cit.* Fig.88). This would be a highly unusual vessel which has no real parallels though Lembessi compares it with certain elements in representations which are usually interpreted as pillars or small columns with capitals. There are also some similarities of overall shape with the columnar offering table from Kannia mentioned below. Also at the peak sanctuary of Vrysinas,

amongst other stone libation tables was found a fragment of one which had a small projection which the excavator suggested could be for the insertion of a pillar or column, but insufficient detail is available to be certain if they are closely comparable (Davaras (1974) 212).

Postpalatial

From the shrine at Kannia comes another offering table set on top of a columnar base. It was found in two pieces against a wall between rooms III and I and consists of an octagonal column, about 0.5, high, on a large square base which has an engraved sea urchin on it. The top has a small flat, round capital in which is inserted a square table with a central cupule (Levi (1959) 246). It has been interpreted as a libation table (*loc.cit.*) though Gesell has compared it with the miniature columns topped by birds found in the protopalatial Loomweight Basement Deposit from Knossos (a) ((1985) 51) and thinks the Kannia example may also have been topped by some object, though the square top with cupule has the appearance of the usual stone libation tables.

Another stone libation table from Kannia has a sharply incut base ending in a cube which also, it was suggested, may have been inserted into another object,

though this is not certain and Warren includes it amongst the category of libation tables with incut bases (Levi *op.cit.* 248; Warren (1969) 64).

Finally, in a building at Kephala Chondru was found a clay offering table which does not fit into any of the recognised categories. Fragments only survive consisting of two legs which showed the beginnings of lions in relief, but the final shape of this piece cannot be restored (Platon (1957b) 331) though the excavator speculated that it might in fact have been a variation of a tripod table (Platon (1957a) 144).

Prepalatial	-	
Protopalatial	settlement:	Phaistos (b)
	rural sanc:	Archanes-Anemospilia
	peak sanc:	Traostalos
		Vrysinas
		Zou
Neopalatial I	settlement:	Knossos (h)
		Knossos (i)
		Mallia (f)
		Palaikastro (b)
		Phaistos (c)
		Zakros (a)
	peak sanc:	Juktas
		Kophinas
Neopalatial II	settlement:	Knossos (j)
		Knossos (k)
Postpalatial	settlement:	Karphi (f)
		Kephala Chondru
	cave sanc:	Psychro

Rhyton

Considered together here are all the different shapes the vessel of this name can take, zoomorphic, anthropomorphic and skeuomorphic (Koehl (1981) Fig.1); and the variety of materials used, pottery and stone (Warren (1969) 84-90). Distinctions will be made however in the discussion and conclusions. All have the determining characteristic of the presence of two holes, placed so as to allow the through passage of liquids.

As with the stone libation table this is another vessel of distinct form and physical characteristics and therefore presumably intended for specific purposes. Usually accepted as being cultic rhytons may also have had practical applications outside shrines as strainers and funnels (Koehl (1981) 181-83), though the specialized forms, decoration and elaboration together with fine materials displayed by many listed here would seem to emphasize their religious associations and, further, the important role they played in cult activities. Several have relief scenes of a cultic nature, again indicating their religious connections.

Although the actual number of shrine sites where rhytons are found is proportionately quite small (17

from 105) it is comparatively quite a large amount for such a special form. This vessel is not found in any of the prepalatial sites in the sample, but otherwise examples come from every chronological period, with some noticeable increase in the neopalatial I. They are found in the four different categories of shrine site types used, though notably few caves and rural sanctuaries: only one of each, and although numerically settlement sites predominate, proportionately this vessel seems more consistent in peak sanctuaries at particular periods. Though it must be noted that they do appear in all, and none of the relative proportions are especially strong.

Protopalatial

In room LV at Phaistos (b), a level 1 shrine room, two rhytons were found (Koehl (1981) 184 mentions also a bull-head rhyton from this room, but I cannot find reference to it, nor does Gesell (1985) 125 mention it). One was a very fine spherical rhyton, and the other a funnel-shape, or piriform, with barbotine decoration (Levi (1976) 100). Libation tables were found also in the large assemblage of equipment from the same room, which included also pottery and stone vessels of different shapes, possibly intended for making a variety of offerings, or for ritual banqueting

(Levi *op.cit.* 101; Gesell (1985) 125, believes this room to have been a cult dining room).

Six rhytons came from the rural sanctuary of Archanes-Anemospilia. A possible three, in fragmentary condition, were amongst the many vessels of the vestibule (Sakellarakis (1979) 354,355). The central room contained an example of spherical form (*op.cit.* 363), and two more, one fragmentary and one spherical which may originally have been grouped with five other vessels at the base of a large pithos (*op.cit.* 377) came from the eastern room. The western room therefore, which contained the human sacrifice, was the only one in the shrine not to include a rhyton.

Rhytons have been reported from three peak sanctuaries, which may date to this period, though it is not always clear. At all three sites the vessels took the shape of bulls. The date of the Traostalos examples has not been specified (Davaras (1967) 102) though the site was certainly in use in this period and comparable bull rhytons from other sites seem more securely to be dated to this period (Davaras-Guide to Hagios Nikolaos Museum discussed bull rhytons in the protopalatial section).

The finds at the large peak sanctuary on Vrysinas included a large number of statuettes of oxen and bulls. Some of these double-headed and took the form

of a rhyton with spouts in the mouths of each head (Davaras (1974) 211).

The peak sanctuary on Prinias near Zou has not yet been fully published but certain interesting objects have been reported. Among these are several rhytons in the shape of bulls, one of the whole animal and another just of the head (Davaras Hagios Nikolaos Museum Guide, figs.32,34). From the same site comes a remarkable rhyton in the shape of the beetle which is often found in model form at peak sanctuaries, *oryctes nasicornis*, this example is reported as being much larger than any so far known (Davaras (1972) 651 - where the fact that the vessel is a rhyton is not mentioned, (1976) 271). There is a parallel for a rhyton in this shape at Palaikastro in the next period, both sites being in eastern Crete.

Neopalatial I

In this period six settlement site shrines in the sample contained this piece of equipment, out of a possible 27 sites. Of these six four are from modified deposits, fallen from upper storeys.

The large deposit from a building north of the Royal Road, Knossos (h) included a small fragment from what would have been a large steatite rhyton originally

believed to have been from a lion's head, but which was later identified as part of a bull's head rhyton (Hood (1961-62) 27, Fig.41; Warren (1969) 89). Several pottery rhytons, of fine manufacture and decoration, belonged to the same deposit (Hood *loc.cit.* and (1962) 260). Associated with these rhytons were more pottery vessels and two stone libation tables and a pair of horns of consecration.

Pottery rhytons were amongst the cult equipment fallen into the Cult Room Basement in the excavation near the Stratigraphical Museum, Knossos (i). The deposit was made up of at least 24 vases; of these twelve were associated with a pithos and may originally have been stored in it. These vessels were of different shapes but shared one feature; the bases of all were pierced through by a hole thus making them rhytons (Warren (1980-81) 83-84; (1981) 155-56). Of the twelve, six were cups, including two matching pairs, a pair of miniature baskets, a miniature pithos and amphora, a cantharos and a remarkable cup rhyton with a decoration interpreted as figure-of-eight shields alternating with what were either boars' tusk helmets or the squill plant, together with the motif of the gorgoneion (*op.cit.* (1980-81) figs.33,34). The miniature amphora had also a very unusual feature consisting of a cone internally suspended from the rim, open at its bottom end to allow the passage of liquids

(Warren (1981) 156, n.4 for some parallels).

From the same fill were thirteen other vessels amongst which was a beautiful conical marine style rhyton (Warren (1980-81) 84, Fig.41). In the fill overlying a court to the northwest of this basement, but originally from the same shrine, fallen in a different direction, were found another cup rhyton, also in marine style, together with the foot of another with reed decoration (Warren (1980-81) 86; Mountjoy (1985) 233).

This is a very remarkable set of cult vessels comprising a large asemblage of rhytons which indicate at the least that libations were a very important part of the rituals carried out in the shrine from which they had fallen. Unfortunately as it is a modified deposit the architectural associations are lost. In the same assemblage were children's bones, some with cut marks, and nearby was the Room of the Children's Bones where many more were found, providing vivid incications of the types of ceremonies taking place.

Another cult deposit which may have fallen from an upper storey, though it is not certain, was found in the rubble of the collapsed south wall of the palace of Mallia (f), in the vicinity of Q. XV. In this area, in XV 6, the top part only of a conical rhyton was

found (Chapouthier and Demargne (1962) 5,54, pl.X,XXXIX; Pelon (1980a) 209; van Effenterre (1980) 337). It preserved traces of a handle and painted decoration of either lions or panthers running. The exact plan of the area seems unclear but the rhyton may be connected to the same shrine as the triton shells from XV 6 and 7, and the above mentioned deposit which included the wheels of a chariot and fireboxes still containing aromatic substances.

A group of objects from Block N, Palaikastro (b), which was found scattered may all derive from the same upper floor sanctuary. Among these objects was a clay piriform rhyton with handles in the shape of the head and horns of an agrimi (Sackett (1963) 620, Fig.7; Sackett, Popham and Warren (1965) 258; Sackett and Popham (1970) 217,238, Fig.9 and pl.57). It is believed to be from the same sanctuary as two bases for double axes and a miniature horns of consecration. From a nearby room, 10, came another rhyton which may or may not be part of the same deposit. This one took the form of a beetle with a hole on the top of its back and another near its base. The anatomical details are clearly rendered including the horn (Sackett (1963) 631, Fig.3; Sackett, Popham and Warren (1965) 261; Sackett and Popham (1970) 220,239, Fig.12, pl.58). Only one other rhyton in this form is known and that is from the peak sanctuary at Zou which seems to be

protopalatial, though as the site is not yet fully published precise comparisons are difficult to make.

From the lustral basin, 63d, at Phaistos (c) come rhytons in both vessel and animal form. A terracotta bull's head rhyton was found on the stairs leading down into the basin, together with a terracotta piriform rhyton with marine style decoration (Pernier (1907) 282-83; Pernier and Banti (1951) 172,173; Mountjoy (1985) 239). This rhyton has an internal cone attached to its rim and is therefore similar to an amphora-shaped rhyton from the Cult Room Basement Knossos (i) mentioned above. Another piriform rhyton also with Marine style decoration was also found in the basin but only the bottom part is present (pernier (1905) 399; Pernier and Banti (1951) 173).

The same lustral basin contained double axes and a horns of consecration, affirming its sanctity, and other vessels included the beautiful reed jug which Alexiou ((1972) 423) regards as also being a rhyton as he says the bottom was pierced by a hole. In the vicinity of this room was discovered a human head rhyton but as it is generally agreed to be of LMIII date it cannot belong to this shrine and will be discussed later.

The central shrine at Zakros (a) contained rhytons

amongst the cult equipment, both in the shrine room itself, room XXIII, and in the shrine treasury, XXV, and several were found fallen from an upper room. Around the bench in the shrine and along the east wall were grouped about twelve clay rhytons of piriform shape, most of which were decorated with painted interlinked spirals (Platon (1963) 174 and (1971) 125). Alongside these vessels were some low funnel-shaped ones also called flowerpots.

The treasury of the shrine contained one pottery rhyton and a large number of beautiful stone ones. The pottery example was spherical in form and had a moulded ring around the neck decorated with two sacral knots (Platon (1963) 180 and (1971) 135), again emphasising the sanctity of this vessel. The stone examples were of spherical, oval and conical form, the majority, sixteen, being the latter shape; and of varied stones, including porphyry, marble and alabaster; many were decoratively carved in various ways. There were seven ovoid rhytons, of similar stones, with the addition of spartan basalt and green basalt, again with carved decorations. One ostrich egg rhyton of alabaster also belonged to the group. The most beautiful was a small ovoid rhyton of rock crystal with a ring around the neck consisting of pieces of rock crystal alternating with small leaves of gilded ivory, and a handle of beads threaded on wire

(Platon (1963) 180, (1971) 135-6). The treasury also contained three faience rhytons, two in the shape of bull's heads, and one the head of a lioness (Platon (1963) 182, (1971) 147). There were other stone vessels in the same treasury including a ritual jug, bowls, chalices and lamps. Objects other than stone vessels included pottery, especially large amphoras, two double axes and decorative elements. The rhytons in this shrine make an impressive and stunning group; their number and the variety of fine materials and skill employed are perhaps an indication of how important this type of vessel was in Minoan cult practices.

In the area of this shrine and probably related to it in some way, though it is unclear exactly how, several rhytons were found which had fallen from the floor above. They had fallen mainly in the area of the Hall of Ceremonies and included among them were the famous Peak Sanctuary rhyton, in several pieces, and a fine bull's head rhyton, which is incomplete, both made of chlorite (Platon (1963) 184-85, (1971) 161-69). Platon believed they had fallen from an upper floor, where it seems an important cult room must have been situated, and perhaps both had been removed from the shrine treasury for use in ceremonies just before the palace was destroyed.

A terracotta rhyton and two ostrich eggs in frag-

ments which may also have originally been adapted into rhytons, were found in the same area (Platon (1971) 158).

Of the peak sanctuaries in this period two only included rhytons amongst the cult equipment, though it must be noted that not all those mentioned in the previous chronological section have been securely dated and may possibly have been in use in this one.

From the immensely rich and varied site on Juktas only fragments of rhytons have so far been reported, all very incomplete, and possibly more fragmentary ones may emerge from closer investigation of the finds. In an excavation of the area along the front of the wing of rooms a neck ring of alabaster, presumed to be from a rhyton, was found (Karetsou (1980) 343). The ring was decorated in relief and preserved one of the holes by which it would have been attached with nails to the rhyton. From a wall of room V of the neopalatial building came a fragment of a large rhyton of black serpentine with white veins, in re-use amongst the ordinary stones of the walls (Karetsou (1980) 349). In the same room, also in a wall was found a piece of gold covering of a rhyton with incised parallel lines (Karetsou (1985) 87, Fig.113).

The deposit on Kophinas, which has been dated as

belonging chiefly to MMIII, contained several rhytons in the form of bulls (Davaras (1961/2 287-88 and (1963) 384). These were either of the whole animal or just the head, as was the case at Zou. In fact these vessels seem very similar to those mentioned for the three peak sanctuaries in the previous period and it may well be that the chronological difference between them is very small, and even though this deposit is dated as specifically MMIII, they may all have been roughly contemporary.

Bulls were the dominant animal represented as figurines at this site, as with some other peak sanctuaries, for instance Traostalos, Vrysinas and Zou. Human figurines were also found at Kophinas and a variety of vessels.

Neopalatial II

The stone vases from the Central Palace Sanctuary Treasury deposit at Knossos (j) are LMII-LMIIIA1 by context, though probably of MMIII-LMI manufacture except for the libation table which Warren believes may be of the same date as its context (Warren (1969) 84). The assemblage consisted of twenty-four stone vases, including three conical rhytons, six piriform rhytons and three lion's head rhytons (Evans (1899-1900) 30-32, (1902-03) 36-37, (1928) 820-26; Warren (1969) 84,85,88;

Gesell (1985) 87). This remarkable collection of stone vessels, comparable in richness if not in range with that from the shrine treasury at Zakros, had probably fallen from a treasury atached to a columnar shrine on an upper floor. It also included an imitation triton shell, a libation table, an imported Egyptian alabastron, an amphora and fragments of other vessels.

A fragment of a stone rhyton, probably of LMI manufacture, came from the Throne Room at Knossos (k). It belonged to a chlorite rhyton of ostrich egg shape and was beautifully carved in relief with a marine scene of an octopus behind seaweed and rock (Evans (1928) 224,502, Figs.130,307, (1935) 930; Warren (1969) 88). Other objects were found scattered in the same area, mostly inlay plaques, which all possibly came from a neopalatial treasury deposit kept in the loggia above the lustral basin.

Postpalatial

In the postpalatial period two settlement site shrines from the sample contained rhytons, both of unusual and complex form. At a third site, which was certainly a shrine in the neopalatial I period another rhyton was found, but the relationship of this vessel to a definite shrine context is unclear.

At Karphi room 27 (f) in the Southern Houses was a shrine room with an outcrop of rock faced with slabs possibly serving as an altar and the objects found nearby may have fallen from it. These objects included two very unusual rhytons; apart from which only a spindle whorl and pottery were found, a double axe came from a room next door, possibly an annexe.

One rhyton was basically of the usual piriform shape, with the interesting addition of a human head forming the neck, open at the top (Pendlebury *et al.* (1937-38) 82, pl.XXXV, 2-3; Seiradaki (1960) 28). It was originally painted but the design is no longer clear. The other was of a very complicated and elaborate form, with no known parallels. It consists of a hollow, ring base onto which are attached three bulls' heads, the whole surmounted by a standing male figure holding onto an object which it is believed may represent the front of a chariot. This arrangement is on top of a smaller, solid ring, supported by three wheels reinforcing the interpretation of the whole as a chariot drawn by oxen. The identification of this object as a rhyton is shown by the fact that there is an opening on the top of the man's head and his body is hollow so that liquid could pass straight through into the hollow ring base and pour out through a hole in the mouth of the lowest ox. Again there are signs that it

originally was painted (*loc.cit.*).

Another unusual rhyton, but not without parallels came from the site of Kephala Chondru, together with one of more usual form. The exact location of the shrine within the house here is not certain, but it was probably on the upper floor. Amongst the objects fallen from it was a conical rhyton with a high handle, decorated in ornamental zones (Platon, (1957a) 144; (1957b) 331; Hood (1957) 631; Daux (1957) 631 and (1958) 780).

The other vessel which apparently was also a rhyton took the form of a squatting pregnant female in the process of parturition, of which only the lower half was found (Platon (1957a) 144; (1957b) 331; Hood (1957) 18; Daux *loc.cit.*). The legs, which are very thin, are bent round over the stomach and the vessel is additionally supported by a prop behind. Small sections of the arms, only the elbows, are preserved but they appear to have been originally held to the breasts. Hair is shown by painted decoration, as is the dress. The vagina is open, which leads to the supposition that this originally was a rhyton. It is also very similar to another rhyton in the form of a pregnant woman from Gournia (Hawes *et al.* (1908) 46, pl.X 11) which was found in a burial context; although different in details of execution the overall position

of the figure is very similar and it has a hole in the top head as well as one between the legs.

Another anthropomorphic rhyton, this time in the form of a male head, was found at Phaistos. It came from the vicinity of the neopalatial I shrine mentioned above, 63d, (c), but its style dates it as LMIII (Pernier (1907) 281; Pernier and Banti (1951) 179,507-12; Gesell (1985) 52). The head has a beard, a prominent nose and a flat head with painted curls across the forehead, a moustache and other painted details. There is a handle at the back, above which is a hole, with another at the bottom of the vase making it a rhyton. Other vases have been found in the shape of the human head, for instance at Kannia and Patsos (see also Gesell (1985) 52 for list and references) but none so far are very similar and no other takes the form of a rhyton.

It can be dated only on stylistic grounds as it came from mixed layers, together with some knives and daggers in bronze (Pernier *loc.cit.*). There are no indications of what, if any, structures it belonged to, but its appearance and form strongly suggest a cult use, especially as it was found in the same area as an earlier shrine.

Only one cave, Psychro, of the sample used in any period is reported to have contained this cult vessel

(Tyree (1974) has no other instances in her catalogue). The rhytons found in this cave were in the shape of oxen, of which three are fragmentarily preserved (Hogarth (1899-1900) 104, Fig.33), the best one has the head and half of the still intact and is quite finely painted. The exact find-spots for these vessels are not given, but seem to be the upper part of the cave.

Conclusions

These are not all the instances of occurrences of rhytons in shrines in the Minoan period (Gesell (1985) 15,33,52,64 has discussions of those found in settlement site shrines) and there are several sites where large quantities of different shaped rhytons are found stored together with other cult equipment, for instance at Gournia, C 58, and Delta 4 at Palaikastro, and G7 room 2 at Pseira (Hawes *et al.* (1908) 39-40; Dawkins (1902-03) 290-96; Seager (1910) 30-31; Koehl (1981) 185-86). These may have been, as Koehl has suggested (*op.cit.* 186) shrine repositories for the whole town, from which they were distributed to particular cult places when needed.

Of immense importance to the whole study of Minoan religion and society is the series of magnificent relief stone rhytons, whole or fragmentary, depicting scenes of religious activity. The most famous and

detailed is the Zakros Peak Sanctuary Rhyton, of piriform shape (Platon (1963) 185, (1971) 161-69; Warren (1969) 87; Shaw (1978) 436 and (1981) 56061), on which is carved a scene with a shrine, with altars and horns of consecration, set in a rocky landscape, inhabited by the Cretan wild goat. This was found in fragments around the Hall of Ceremonies and Platon suggested it may have been removed from the shrine treasury, where many other beautiful rhyton were found, to be used in the final ceremonies ((1971) 161-69).

Two other well-known relief rhytons came from Haghia Triadha: the so-called Harvester Vase, which is ostrich-egg shaped, and the Boxer Vase which is conical (Harvester Vase: Savignoni (1903) 77; Nilsson (1950) 160; Forsdyke (1954); Warren (1969) 88,175-76,179-80. Boxer Vase: Halbherr (1905) 240; Warren (1969) 85,175,176,178; Halbherr, Stefani, Banti (1977) 83). The scenes on both of these seem to have definite religious connotations.

Various fragments have been found in the vicinity of Knossos, one of which shows a man bending over a bowl in front of a shrine building (Platon (1951) 154-56; Alexiou (1959) 346-52 and (1963) 339-51; Warren (1969) 85,175). This may in fact belong to the same vessel as another fragment showing men in a procession holding bowls, also in the vicinity of a building

topped by horns of consecration (Evans (1902-03) 129-30 and (1928) 752; Warren (1969) 85).

Another fragment shows a masonry altar topped by horns of consecration, in front of an enclosure wall around a tree, with two figures moving in front of it (Evans (1901) 103, (1928) 614-16; Nilsson (1950) 120: Warren (1969) 85). Warren notes that all but four of the known examples of relief scenes carved on stone vessels are rhytons, or fragments of (*op.cit.* 175). This surely emphasizes both the general religious nature of this vessel, since many of the scenes depicted are overtly religious, and also perhaps its special significance in Minoan ritual, since this shape beyond all others was chosen to be decorated in this pictorial and expressive way.

From the sample of sites used here it is noticeable that rhytons were in general use in all types of sanctuary site and not restricted to any one, though the connection with certain types, noteably settlement and peaks, seems stonger.

In the protopalatial period only one settlement site shrine from the sample contained this type of vessel. The room, LV at Phaistos (b), in which they were found, may have been a shrine room proper, or a shrine store, it is not certain. In this period also

belongs the only examples recorded so far from a rural sanctuary: that at Archanes-Anemospilia, where several were found, all in vessel form, as were those from Phaistos. It is interesting to note that at both these sites the rhytons were found amongst very large numbers of other vessels and that pottery as a whole was by far the largest category of cult equipment at both.[1]

Three peak sanctuaries, of a possible nine in this period, contained rhytons, all were bull-shape, except for the one in the form of a beetle from Zou.

In the neopalatial period appear the first rhytons in this sample made of stone, both in vessel form and some very fine zoomorphic examples. This period in fact sees the greatest number of sites containing this piece of equipment, and it must have been a frequently used vessel in the ceremonies at both settlement and peak sanctuaries. They appear in a bench sanctuary (Zakros (a)) and a lustral basin (Phaistos (c)) from the sample and there is also the steatite bull's head rhyton from the South West Pillar Crypt of the Little Palace, Knossos (Evans (1913-14) 70-94 and (1928) 527-40) which demonstrates that within settlement sites

[1]From room IL at Phaistos, in the vicinity of LV but not certainly connected with it, came three bull-shaped rhytons (Levi (1976) 545-56) and there are other bull-shaped rhytons (Levi (1976) 545-56) and there are other bull and bull-head examples from mixed contexts at Phaistos (see Gesell (1985) 15) so that zoomorphic examples are not unknown in this period.

rhytons were not confined to any one particular type of shrine room. Gesell ((1985) 33) suggests that perhaps the bull-form rhyton was more closely associated with pillar crypts but the evidence is not strong numerically, nor clear-cut as there are several examples from shrines other than pillar crypts.

More rhytons in the form of bulls were found at the peak sanctuary of Kophinas, which seem, though the available evidence is not very full, to be closely related to those found at peak sanctuaries in the previous period, and may be treated as a coherent group. The rhyton in the shape of a bull is clearly the most popular form used in peak sanctuaries, with few exceptions: the beetle shaped one from Zou is one and the stone ring, body fragment and gold covering from lost rhytons from Juktas are others, which also forms so far the only evidence of a stone rhyton from a peak sanctuary.

The bull in fact is by far the most common form of zoomorphic rhyton in all types of sanctuary, though beetles (Palaikastro (b) and Zou) and lion's head (Knossos (j)) are also found as well as the plastic additions of agrimi (Palaikastro (b)) and a lioness

(Mallia (f)).[2]

In the postpalatial period rhytons are found at fewer sites and seem to have decreased in popularity. However the forms the vessels took were sometimes very remarkable and they appear in human shape for the first time, but the range of vessel shapes seems more limited.[3]

This is also the period in which rhytons appear at a cave sanctuary, Psychro, which is the first and only known occurrence. The vessels at this site also took the form of bulls so that here, as at the peak sanctuaries, the bull seems to be the preferred shape. It also means that rhytons in the form of bulls, either the complete animal or just the head, are found at all types of sanctuary except rural.

Within the settlement site category, as already briefly mentioned, rhytons are found in various sub-types of shrine and together with a range of cult equipment. They have been found in association with a probable bench-altar at Zakros (a), showing that they were used in important ceremonies at the heart of

[2]A clay cat's head is also known from Palaikastro (Sackett, Popham and Warren (1970) 239; Bosanquet and Dawkins (1923) 54) and a pig and possibly a boar from Phaistos (Levi (1976) 443,651).

[3]There are prepalatial vessels in human form with spouts which could be classed as rhytons, for instance one EMIII example from Mochlos of a woman holding her breasts (Seager (1912) 64; Evans (1928) 258) and one similar in some ways from Mallia (Demargne (1945) 14), both however are from funerary contexts.

worship, though none have so far been found in the same shrine room as cult figurines. At Phaistos (c) horns of consecration, double axes, a stone libation table were present in the same shrine; stands for double axes came from the same deposit as a rhyton at Palaikastro (b) and horns of consecration were also part of a deposit with rhytons from a building north of the Royal Road, Knossos (h) so that the rhyton has been found in association with these important Minoan cult emblems and equipment, though this association is not very consistent.

At peak sanctuaries rhytons were found in mixed deposits of human and animal figurines, with no clear definite associations. Rhytons made of stone are confined to settlement sites, apart from the fragments from Juktas. It is also noticeable that bull rhytons were the only form found at peak sanctuaries, with a very few exceptions. One of these is the above mentioned fragments from Juktas which is the only evidence of the use of rhytons so far reported from this sanctuary, otherwise so rich. Also notable is the apparent complete absence of rhytons from the site of Kato Syme; however this is only negative evidence and cannot be used to build any firm conclusions on.

Apart from the above no particular patterns of use of this special form of cult vessel are discernible,

and it was used in all types of sanctuary, though apparently less frequently in cave and rural sanctuaries, and in most periods. The ceremonies that they were used for would therefore seem to some extent common to all. This could be in part because this form of vessel was a standard and convenient means for making liquid offerings, of possibly either milk, wine or blood, as the stone single cupule libation tables were for solid offerings. However the fact that they were made in very fine materials, in special and elaborate forms and carved with ritual scenes, must also indicate that they were considered as having a particular religious significance, a view which is strengthened by their presence in large numbers in some shrine treasuries.

It is often stated that the rhyton was a vessel used in ceremonies involving liquids, for making libations. Occasionally in settlements they do indeed seem to be found in contexts where other facilities for the collection and drainage of liquids were present. Many of the rhytons from settlement site shrines however are part of modified deposits and so it is no longer possible to be certain of their original architectural associations. There does seem to be some connection with lustral basins in the neopalatial period, with examples found in the basin at

Phaistos (c) and in the same shrine complex as a basin at Zakros (a); and a fragment of a stone rhyton came from the Throne Room in the neopalatial II period, which of course also had a lustral basin. Alexiou has also made the connection between rhytons and lustral basins ((1972) 428) saying that such beautiful vessels would demand a comparably distinguished area for their ritual use (Gesell (1985) chart VIII has four neopalatial I and II lustral basins which contained or were associated with rhytons, three are the same as above and the other is from Mallia House Za, cat.83). In this context the rhytons may have been used as part of ritual cleansing or annointment, though it seems more likely that they were in fact used for making libations. They were also found frequently not in association with the lustral basins (Alexiou *op.cit.* 426-28).

There are other sites which contain facilities for the reception of liquids which may have been used in conjunction with the rhytons, though the connection is even more tenuous. For instance at Zakros (a) a drain was found in the shrine area, which could have been intended for the removal of liquid offerings, but as mentioned above it is not certain where it opened and there does not seem to have been access in the shrine room itself. The Stone Vase Deposit in the Cental

Palace Sanctuary area Knossos (j) which contained rhytons may be placed in connection with the pillar crypts in the same area, the Eastern one of which contained basins on either side of the pillar, as well as those also in the Vat Room (Alexiou *op.cit.* 429), though the deposit had fallen from an upper storey and their association with the pillar crypts is therefore indirect. Gesell (*op.cit.*) chart VII (p.148) has only two other pillar crypts where rhytons were found, neither of which had vats or basins.

The ceremonies in which rhytons were used to make liquid offerings sometimes, but not always, took place where the liquids could be collected by special facilities, though these varied. In other shrines possibly the pottery vessels also found could have been used for this purpose. Or the offerings may have been allowed to fall directly on to the ground, which was probably the case at the peak and cave sanctuaries where cracks in the ground may have provided convenient conduits.

The rhyton was a special cult vessel, often found in very fine or elaborate forms and sometimes in large numbers. Its use, and the ceremonies it was associated with, were not confined to any one type of sanctuary, and although there does seem to be a connection with lustral basins this is neither

particularly strong nor exclusive. They can also be found with quite a range of other objects and no special associations seem to be discernible.

	<u>Tubular vessel</u>	
Prepalatial	-	
Protopalatial	settlement:	Mallia (a)
Neopalatial I	settlement:	Knossos (d)
	rural:	Kato Syme
Neopalatial II	-	
Postpalatialp	settlement:	Gazi
		Gournia
		Haghia Triadha (b)
		Kannia
		Karphi (c)
		Karphi (d)
		Karphi (e)
		Katsambas
		Kephala Chondru

Tubular vessel

This is another special form of cult vessel, which is quite clearly a feature predominantly of postpalatial settlement site shrines. The possible forerunner of the type is found in a protopalatial settlement shrine, and examples do also occur in the neopalatial period, including at the single rural sanctuary where this vessel has been found, which is also the only non-settlement example. Although the overall number of sites in the sample where this piece of equipment has come from is quite small, twelve out of 106, what is noteworthy is that in the postpalatial period nine of the 20 settlement sites in the sample (fifteen primary; five modified), that is very nearly half, contained tubular vessels.

Protopalatial

The single example found in a protopalatial shrine is not of the canonical form, but it may be related and certainly fits into the overall category.

This vessel came from the storeroom of the independent sanctuary at Mallia (a) (Poursat (1966) 524,535) and is therefore from a level 2 context. It is cylindrical and seems to have been open at both

ends, though it was very broken and had to be partly restored. The main difference from later examples is that it narrows slightly at both ends, and the arrangement of two pairs of opposing handles is also unusual, though there are many variations in such arrangements later. It is not even certain that it would have stood upright and the whole object does resemble a drain pipe, from which this class of vessels has been considered to have developed (Evans (1935) 145-48).

This tubular vessel, as mentioned, came from the store room and Gesell ((1985) 9) believes that it was indeed a water pipe and not a piece of cult equipment at all, though she gives no explanation for its presence among other cult equipment; it is possible that even if it was an ordinary water pipe it was put to cult use, as other secular objects were, though precisely what this might have been is not certain.

In the same storeroom were found the rim of a vessel with a model horns of consecration attached, a model of a triton shell, an animal figurine and various vessels. This tubular vessel from Mallia is a very simple and rough form of the category, with no attributes or special decoration, and it could be seen as a prototype of the later developed vessels, though the connections are not certain.

Neopalatial I

In this period three sites, two settlement and one rural, contain tubular vases, which themselves are of quite different appearance.

At Knossos an assemblage of ritual equipment was found stored in a pithos in a house southwest of the Northwest Treasury. Among the assemblage were three vessels of tubular form (Evans (1935) 140-42), each with a closed base, a ring around the bottom and slightly flaring rims. Where these tubes differ from the usual form is in the addition of little cups or receptacles of a flat-based conical shape, to the sides. Two of the tubes have three cups attached, and the other has four smaller ones.

Evans suggested the explanation of the presence of these cups was that they would have contained milk for snakes to feed on (*op.cit.* 142); the tubular vessel itself being, he believed, developed from drainpipes which often served as natural refuges for the household snakes. This was one cause for the connection made between the tubular vessels and snakes, another was formed by the attachment of serpentine handles on examples found elsewhere. In the same assemblage at Knossos were also some very unusual perforated vessels

which had model snakes attached to them, and Evans interpreted the whole collection of vessels, including the tripod tables and milk jugs also belonging to it, as serving the domestic cult of the household goddess with her attribute and familiar of the snake (*op.cit.* 145-48).

The other settlement site of this period to produce examples of tubular vessels was a villa at Pyrgos, Myrtos, where a deposit of this date was found scattered as it had fallen from an upper floor shrine. Four tubes were found, two of which were broken off at the top (Cadogan (1973) 34; (1977-78) 77; Gesell (1985) 35). One of the tubes was topped by a bowl. From the same deposit came also a bowl with a long thin stem which fits securely into the other complete clay tube and has a similar shape and lug handles to the bowl still fixed to the first tube (Cadogan (1981) 169). Only one of the tubes has a solid bottom, consisting of an inserted clay disc, though the others may originally also have had the same. All have added plastic decorations of chevrons and pie-crusts in clay. Partially preserved also are small vertical handles, on only one side of the vessel, as with the examples from Kato Syme, mentioned below. These are possibly antecedents though in some ways quite different, to the serpentine handles of the later ones.

The Pyrgos examples provide the best evidence for the function of this type of vessel: the bowls must have been used to hold offerings of some sort, and they themselves, it has been suggested, may have been held and carried separately (Cadogan (1981) 169). This arrangment with an added bowl is perhaps paralleled by the attachment of cups, also thought to be for offerings, to the examples from Knossos mentioned above. The other objects deriving from the shrine at Pyrgos included two natural triton shells and one of faience, a foot amulet, clay sealings and a Linear A tablet.

The only non-settlement site where tubular vessels have been found is the rural sanctuary of Kato Syme. The example from Kato Syme comes from room 5 of the multi-roomed building there and was discovered on the floor (Lembessi (1973a) 195, (1973b) 119, (1976c) 8,10, (1981) 17, n.2). This tube, the only one published so far, is of quite unusual form being very thin and tapering, and has two handles. It was found together with wide-mouthed conical cups with a cylindrical stem, among other vessels of religious use such as clay chalices and an offering table. The closest parallels for its shape are found in the examples from Pyrgos mentioned above, and the two sites are quite close geographically. The excavator did suggest (Lembessi (1981) *loc.cit.*) that it was used either as a base on

which was placed the conical cup to receive offerings, again like the Pyrgos pieces, or as a libation vessel, or possibly both.

The stands from Pyrgos, together with the similar one from Kato Syme especially, but also to some extent the Knossos examples, seem to be the antecedents of the tubular vessels of the postpalatial period but do not particularly resemble the water pipes from which has been proposed that they ultimately derive. It has also been suggested (Cadogan (1981) 169; Gesell (1985) 50-51) that a more likely derivation is from the protopalatial fruitstands on a single cylindrical foot, and that these neopalatial examples form a half-way stage in the development of the more canonical post-palatial tubular vessels, or stands, as they now seem more likely to be.

Postpalatial

In the postpalatial period this cult vessel reached its best-known form and became an important and widely used piece of equipment in the shrines of settlement sites. Of the 20 sites of this period in the sample, nine contained tubular vessels, usually more than one, which is a very high proportion compared with many other categories, and examples were found at other sites, all settlements, which are not included in

the present sample (Gesell (1985) 50-51 and (1976)).

Although this is the period of the canonical tubular vase variations do still occur, which will be described below.

At Gazi two tubes were found (Marinatos (1937) 279, 283-85; Gesell (1976) 248,255-56), quite different in appearance from each other. One narrows towards the top and has what amounts almost to a small neck at the very top. This one was badly preserved but retains traces of four loop-handles on opposite sides. The other has three rings around the base and top and three loop-handles. There are indications that both had solid bottoms, and the second vessel was painted red.

Five goddess figurines came from this shrine, one of which was made of the same clay as the first tubular vessel, and another was painted in the same red colour as the second. The tubular vessels may therefore, as Gesell has suggested, ((1976) 248) have been closely associated with those particular goddesses and used to make offerings only to them. The first goddess had poppy attributes in her head-dress and the second has birds and horns of consecration as attributes. It is interesting to note that none of the figurines has snake attributes, nor do any of the vessels. The

other vessels in the shrine, probably also used for offerings, seem similarly bound to individual figurines, and included a clay offering table, bowls, a jug and kylikes.

At Gournia five snake tubes, whole and fragmentary, were found (Hawes *et al.* (1908) 47,48; Gesell (1976) 248-50,256; Russell (1979) 30), in a shrine which also contained goddess figurines. The tubular vessels here had actual cult symbols attached to them, and in one case a plastic snake. This fact was one which originally promoted the theory of the direct connection between this type of vessel and real snakes, (Evans) (1935) 140ff.), though this seems no longer so close or sure.

Of the Gournia vases at least two had loop handles running down opposite sides, and they probably all had solid bottoms. The three most complete had a feature not found on tubular vessels elsewhere, in the form of an additional larger, single lifting handle, each surmounted by a horns of consecration. One also had the above mentioned snakes attached to it; on another the horns were topped by a disc, and the third also originally had another attribute, now lost. The tubes also had rings around the top and bottom, and one, the best preserved, had a widely flaring rim, which may have supported a bowl. The others showed signs of

similar mouths.

Here also then were multiple tubular vessels, the three most complete showing different individual attributes, in the same shrine as more than one goddess figurine, perhaps each having its own offering vessel as at Gazi. The preserved goddess has a snake twining round her body as an attribute, and other snakes, broken off other objects, were also found in the shrine, so that the association between the snake attribute and the tubular vessels, also known as snake tubes, is here apparent. Model birds also came from this shrine, again possibly originally attached to figurines.

It was reported originally that one of these tubular vessels was found standing on the tripod table belonging to the shrine, which would have important implications for the use and associations of this cult vessel. This observation has since been challenged (Evans (1935) 143, n.6; Russell (1979) 30), though the fact remains that the tubular vases and the figurines were gathered around the tripod table, which seems to have been the focus of the shrine and the centre of the ritual activity.

Tubular vessels were found also at Haghia Triadha (b), which, like the above two shrines also, was an independent, level 1 shrine room. This too was a

bench sanctuary in which the bench, probably used as an altar, ran across the width of the back wall. The shrine was found to have three floor levels, the lowest with a marine fresco, and after some debate it has now been demonstrated that all three levels fall within LMIIIA-B, and that the earliest does not date back to LMI as had once been thought (Banti (1941-43) 28-40; La Rosa (1979-80) 57-58,103-107).

On each of the three floors stood examples of tubular vases (La Rosa *op.cit.* 103). On the earliest the vases were found on the floor in front of the bench-altar (Banti *op.cit.* 33). One was found associated with the middle floor and three more with the highest (Banti *op.cit.* 39). The lowest floor was plastered and painted with a beautiful marine scene (Hirsch (1977) 10-11 and (1980) 459-61) and other objects belonging to this phase were three bowls, some cups, glass paste and gold leaf (Banti *op.cit.* 31-37). No other finds are specifically mentioned for the middle floor. The shrine represented by the upper floor also contained a lamp and on the bench itself were up-turned conical cups and miniature vases (Banti *op.cit.* 39).

Tubular vessels are thus a consistent and important feature of this shrine over its three phases, and in two of these, the lower and upper, it seems,

although the material may be deficient, that there were three of these vases. In the former instance they were matched by three bowls. No cult figurines were found in the shrine and so the association noted in the previous two (Gazi and Gournia) is lacking, though objects could have been removed from the sanctuary; the presence of gold leaf and glass paste in small quantities suggests the existence of some precious and highly decorated object now disappeared. It appears from the evidence that the tubes themselves stood on the floor of the shrine, in front of the altar on which other vessels were positioned.

The villa at Kannia contained a number of rooms where evidence of ritual activity was found, though it is not always clear which are shrines and which are subsidiary (Hood (1977) 170). Room I seems likely to have been a shrine and is therefore level 1. Three tubular vessels were found here, in front of a bench, along with four goddess figurines and fragments of others; votive figures also came from this room, a relief plaque and elements from necklaces. The tubes themselves had original features: one was decorated with plastic agrimi, another had cut-out decoration which included an incurved altar. They also have a double row of serpentine handles, another unusual feature, and two at least probably had solid bottoms

(Levi (1959) 246; Gesell (1976) 250,256-57).

Room V may also have been a shrine room, or possibly a store room, it is uncertain. It contained benches on two walls, a hearth and a goddess figurine with fragments of others, including one with snake attributes, as well as a male figure, a pinax, a libation table and three fruitstands or offering tables, along with two tubular vessels. One was found near the bench on the north wall, the other came from close to the other bench. This second consisted of a fragment from the upper part of the tube and had attached a plastic bull's head and also two circular cut-outs. The former vase also has cut-out decoration, in this case of rectangles (Levi *op.cit.* 246-47; Gesell *op.cit.* 252,257).

A third room in the same villa, room XV, though narrow, may also have been a shrine. Along its western wall was a form of low bench. Here was found still upright a tubular vase with serpentine handles (Levi *op.cit.* 249; Gesell *op.cit.* 251,256). In the same room, amongst other objects, was a goddess figurine, her tiara decorated with snakes, and a stepped stone libation table with carved decoration of horns of consecration.

In all three rooms where the tubular vessels were found, which may all have been shrine rooms, goddess

figurines were also present, in two cases, rooms V and XV, with definite snake associations. Room III of the same complex contained a goddess figurine but no snake tubes. The assemblages in each room are rich and varied and included, in rooms V and XV, stone offering tables, as well as pottery vessels, all of which could have been used for making offerings. Each of the rooms also contained at least one bench, which may have partially fulfilled the function of altar.

At Karphi tubular vessels were found in three totally separate shrines. Two examples came from room 58 of the Priest's House (c). This seems to have been a shrine room proper and therefore is level 1, with a rock projecting from the northwest corner which may have served as the equivalent of a bench-altar. Two tubes were found in the corner opposite to this rock bench. One was very unusual in being actually rectangular in section, and had loop handles (Pendlebury *et al.* (1937-38) 85 pl.XXXV, 7; Seiradaki (1960) 28; Gesell (1976) 252,257). The other was cylindrical with a flaring base and two handles, and probably had a solid bottom (Pendlebury *et al.*(*oc.cit.*; Gesell *(oc.cit.*). Also in the room was some pottery, including pithoi probably, and spindle whorls.

A disturbed deposit, and therefore modified, was found in association with the Temple Road East, Karphi

(d). This road probably ran between the Priest's House and the main temple at Karphi (a). A fragment of a ridged tubular vessel was part of this deposit as well as fragments of a goddess figurine, a stone bowl and pottery, though little can be ascertained about their original context and associations (Pendlebury *et al. op.cit.* 86).

A third shrine at Karphi (e) in rooms 16-17 in the Great House, seems to have been an open court which may or may not have been divided. In one section, 16, were found fragments of clay figurines of the goddess type, and a conch shell; in the other, 17, a tubular vessel was discovered together with some bronze blades and pottery (Pendlebury *et al. op.cit.* 77-79; Gesell *op.cit.* 252).

The recurrent association of goddess figurines with tubular vessels is maintained here in two shrines (d and e), though in one the assemblage is modified. On the other hand the main public shrine at Karphi, room 1 (a), with the most impressive goddess figurines did not contain tubular vessels. The tubular vessels from Karphi are LMIIIC and thus so far probably the latest in use.

A small private bench sanctuary was found attached to a house at Katsambas. This shrine had a bench-

altar of unusual form across one end of the triangular-shaped room, in front of which were two tubular vessels (Alexiou (1955) 313; Hood (1955) 29; Gesell *op.cit.* 252,257, pl.41, Fig.5). These tubes were very similar to each other with slightly flaring bases, probably open, with two pairs of looped handles and painted red. Under the bench-altar were stored an incense burner, a pyxis and two handleless cups. The tubular vessels then were the only vessels actually out in the shrine when it was last used, and left standing in front of the altar, possibly for the purpose of making offerings. The other vessels might have been brought out when required, though whether the tubular vessels were permanently in position or were also periodically stored cannot be known. It can be conjectured that the two cups, corresponding in number with the tubes, may have been placed on them with offerings.

A modified deposit was found fallen from an upper floor shrine at the house at Kephala Chondru. A single tubular vessel came from this deposit, which had two serpentine handles of three loops, probably a closed bottom, and was painted red (Platon (1957a) 143, pl.70a, (1957b) 331; Gesell (1976) 252-3, 257-58). The same deposit included a conical rhyton, a rhyton in the form of a female giving birth, part of an offering table and pottery. However as it is a modified deposit the precise architectural associations are

lost.

The above are the tubular vessels found in shrines of the postpalatial period used in the sample, other important examples do exist all from shrines in settlement sites. These may also be independent sanctuaries, at Koumasa and Prinias, though in both cases the area was too disturbed to be sure of the original character of the buildings.

A very interesting and illuminating example was also found in room 4 of a house at Kommos. The tube had a slightly flaring base, with two serpentine handles each with four loops. It was found together with a conical cup resting in its mouth which in turn contained water-worn pebbles and a layer of calcium carbonate. Inside the body of the tube was a quantity of sand, possibly to help its stability. It was decorated both with plastic birds on the handles, of which two remained, and traces of two others, and with painted black bands, as is the conical cup. The birds also have painted decoration. The tubular vessel seems originally to have stood on a flagstone in the shrine which also contained a basin, brazier, pottery, stone tools and a bronze blade (Shaw (1977) 227-31, (1978) 120).

At Koumasa two tubes were found (Xanthoudides

(1906) 32; Pernier (1906) 111; Xanthoudides (1924) 49-50; Platon (1951) 145-47; Gesell (1976) 253,258), though they have never been fully published. One had painted decoration of bands and stylized octopus tentacles in black paint.

Five tubular vessels were found in the shrine at Prinias (Wide (1901) 247-57; Milani (1905) 118-20; Pernier (1906) 119-20, (1908) 455-57; Banti (1941-43) 43; Gesell (1976) 253, 258-59), in an assemblage which contained at least five goddess figurines, though the area was much disturbed and no plan of the building could be obtained.

Fragments of tubular vessels were found together with fragments of a goddess figurine near Khamalevri in a survey but have not been fully published (Hood, Cadogan and Warren (1964) 65) but at least demonstrate again the connection between this type of ritual equipment with the goddess figurine with up-raised hands. Other examples come also from Amnisos and other fragments from Haghia Triadha (Gesell (1985) 50, notes 73 and 74).

Conclusions

This interesting vessel seems to have exclusively a ritual use and almost exclusively that use was in association with shrines in settlements, with only one

example from a rural sanctuary, and possibly others from outside settlements depending on the status of the sites at Koumasa and Prinias.

The period of greatest use of this vessel is clearly the postpalatial, when almost half of the settlement shrines in the sample contained examples. There is also a tubular vase of related if not identical form from a level 2 context in the protopalatial period, and three certain sites where they have been found in the neopalatial I also.

The single tube found in the store room at Mallia (a) does resemble the water pipes from which this vessel was at one time thought to derive, though this is no longer believed to be so (Gesell (1985) 50-51). Its function and status in this shrine are not clear from its context, or whether it was only being stored temporarily and was periodically in use in the shrine proper. This Mallia example can be seen as an early prototype for the later, more refined tubular vessels, and its similarity to them makes it seem unlikely that it was not in some way related.

It is in the neopalatial I period that tubular vessels occur outside settlement sites from the sample used. The tubular vessel at Kato Syme came also from a subsidiary context, where it was found with many

other pieces of ritual equipment, such as libation tables and chalices.

The other shrine in this period with tubular vessels is the only one at Knossos so far known, and it is not in the actual palace but in a dependent house. The tubular vases here are rather different with attached cups but again do seem to be a closely related piece of equipment.

In the postpalatial period the tubular vessel becomes more standardized, but the examples are not necessarily identical, even within the same shrine, except the pair from Katsambas, which are very similar. Many have special features, attributes and adaptations. The examples from Gournia demonstrate this well; while sharing the same basic form and shape each has a special attribute in addition to the model horns of consecration attached. Two different tubular vases from separate rooms at Kannia have animal attachments, one an agrimi, the other a bull. This pronounced variation in individual characteristics of many of the vessels, though only in the manner of plastic or decorative features, may reflect their association with a particular aspect of the cult, or may be just decorative and formal, as with, for instance the different shapes of rhytons within the same shrine.

That these vessels, once known as snake tubes, had a very close connection with snakes does not seem certain. Beyond the serpentine handles only one tube from Gournia and two from Prinias have actual snake symbolism, where the goddesses also have snake attributes; however not all the vessels are found in shrines where explicit snake motifs are also present. Their possible function as refuges for snakes has already been put in doubt (Marinatos, Sp. (1937) 286; Cadogan (1973) 37) and it has rightly been pointed out that they would better serve this end if they were fashioned to be placed horizontally rather than vertically as they are clearly meant to be.

Although it is frequently mentioned it does also not seem to be relevant to their function whether the tubes had solid bases or not, and indeed the variations in this show that it cannot have been important. This in turn must surely discount Nilsson's theory that they were used for chthonic libations ((1950) 319) intended to pass directly into the earth, though they do seem usually to be placed on the ground. Lembessi ((1981) 17, n.2) suggests that this may be the use of those which have open bases, though it cannot be so for others with solid ones. This interpretation is further weakened by the example from Kommos which was partially filled with sand.

Their actual use, suggested at an early stage by Williams (Hawes *et al.* (1908) 48) and now widely accepted (Cadogan (1973) 38; Gesell (1976) 255 and (1985) 51) seems to have been as stands for supporting offering vessels, a theory which receives confirmation from the Kommos example and also a tube from Pyrgos, which had such vessels still in place or closely associated. The same evidence, and the fact that they have often been found standing on the floor in front of altars (Haghia Triadha, Kannia, Katsambas) also invalidates another theory that they were aniconic cult figures (Cadogan (1973) 37-38; Gesell (1976) 253,255; Marinatos, Sp. (1977) 286).

Their function as offering stands therefore seems likely, which tends in turn to weaken the theory that they derived utimately from drainpipes as Evans believed ((1935) 145-49). It also seems less probable given the range of shapes they assumed, and that some of the neopalatial examples, from Pyrgos and Kato Syme, being almost the earliest, least resemble the water pipes. Near Eastern and Egyptian parallels have been drawn for both the origin and function of these vessels (Williams in Hawes *et al.* (1908) 48; Evans (1935) 167-68; Nilsson (1950) 318-19; Gesell (1976) 254) and it has also been suggested that they may have developed from the protopalatial fruitstand, though neither of these are certain.

Up to the postpalatial period none of the tubular vessels discussed came from a definite level 1 primary context, and so they have no direct connection with a shrine room and the ritual activity taking place there. Their precise position within shrines and function become clearer in the postpalatial period when in seven of the nine sites in the sample the tubular vases are found in level 1 primary contexts.

In five (one a modified deposit) of the nine shrines the tubular vessels were directly associated with figurines, or fragments of, of the type recognised as representing a goddess. This is a strong association, especially when added to the examples known from Prinias and K͡alamevir, not included in the sample. Possibly, as at Gournia the tubes had different attributes and were intended to serve individual goddesses with different powers, but this can only be conjectural.

There are also other postpalatial shrines where goddess figurines of the same type are present but are not accompanied by these vessels, notably the Shrine of the Double Axes at Knossos (m) and the Temple at Karphi (a).

The tubular vessel also seems to be closely associated with benches which were used as altars: six

of the sites were furnished with benches, or similar equivalents serving as altars. At Haghia Triadha (b) it is remarkable that all three levels of the shrine were characterized by the presence of a bench-altar together with tubular vessels. In none were the tubes found on the bench-altar, rather they seem intentionally to have been placed on the ground in front of them, and in the case of the shrine at Gournia on the floor around the tripod table which seems to have been the focus of the shrine. From this it is reasonable to assume that they were pieces of equipment used to facilitate the making of offerings in front of the altar.

It has been proposed in this connection that the tubular vessels were stands on which were placed other vessels, containing the offerings. In some of the shrines, for instance Gazi, Haghia Triadha, Katsambas and Kephala Chondru, other pottery, bowls or conical cups, was also present, which could have been used in this way. The vessels at Gazi have in fact been considered as separate offering vessels, and several of those from Haghia Traiadha were found on the altar itself, and may therefore have not been put to uses in connection with the tubular vessels.

However the neopalatial tubes from Knossos (d), and the postpalatial ones from Pyrgos (and Kommos) had

such receptacles still attached in different ways, and the neopalatial example from Kato Syme was found near conical cups with cylindrical stems.

Alternative vessels for offerings were present in many of the shrines, so that the tubular vases were not the exclusive means of achieving this ritual action, but they may have been amongst the most important to judge by their relative positions in the shrines.

Other special forms of clay offering vessels, the kernos and rhyton, already discussed, are not so popular in the postpalatial period as the tubular vessel, and on the whole are not found in the same shrines, with the exception of the deposit from Kephala Chondru. On the other hand four of the shrines with tubular vessels also contained clay and stone offering tables (Gazi, Gournia, Kannia, Kephala Chondru).

Great emphasis has here been placed on the postpalatial examples of this category of equipment, but this is because it is the period of most pronounced use, and the examples then come mostly from clear and informative level 1 contexts. In this period tubular vessels seem to have been a consistent feature of shrines in settlements, especially of the bench sanctuary type, which are also perhaps most popular in this period.

In the preceding periods the tubular vessel, in more varied forms, was not such a frequent part of the equipment in shrines and a pattern in its use is not easily discernible. However there is an overall noticeable preponderance of this vessel in one particular type of site: settlements, which must in turn reflect some specialisation of ritual practices and ceremonies.

Chalice

Prepalatial	-	
Protopalatial	rural sanc:	Archanes
Neopalatial I	settlement:	Knossos (i)
		Zakros (a)
	rural sanc:	Kato Syme
Neopalatial II	-	
Postpalatial	-	

Chalice

The chalice, or tall footed conical cup has been found at comparatively few sites, though at one, Kato Syme, they occur in large numbers. From the sample chalices were part of the cult equipment at settlement and rural sanctuaries only.

Protopalatial

In the protopalatial period only one site from the sample is reported to have contained a chalice and that is the rural sanctuary of Archanes-Anemospilia. One example was found in the vestibule and is described as being one of the more notable vessels of the whole site. It was tall with plastic rings around the base, and a wide wavy rim; it is slightly different from the standard straight-sided vessels as it swells towards the rim and it also had two vertical ribbon-shaped handles (Sakellarakis (1979) 355, Fig.3).

From the western room of the temple, which was one of the actual shrine rooms, came the undulating rim of a chalice. The fragment came from the destruction layer of the room, above the actual floor level, and seems, along with other vessels to have fallen from some higher part of the room, possibly a shelf

(Sakellarakis *op.cit.* 383). It was in this room that the remains of a human sacrifice were found, and the number of vessels contained in it was relatively small compared with the other rooms in the building. These included the rim of a large bucket-shaped vessel similar to the one found in the vestibule with the decoration of a bull. If the chalice was standing on the shelf at the time of the destruction of the shrine it presumably cannot have been in use in the ceremony surrounding the sacrifice, but must have been used on other occasions, perhaps in sacrifices of a different nature, possibly bulls (Sakkellarakis *op.cit.* 388-89).

Neopalatial I

The only other period in which this vessel appears in the sample of sites used is the neopalatial I, when two settlement sites and one rural sanctuary contained examples. Here it is also appropriate to note that the faience vessels from the Temple Repositories Knossos (b), with painted and in one case relief sprays, which are sometimes called chalices are not included in the present category as they are more like tall cups and are not of the chalice shape considered here (Hood (1978) 134).

A neopalatial shrine at Knossos, (i), contained a fragment of a serpentine chalice. The Cult Room

Basement contained both a floor deposit and a separate assemblage which had fallen from above. The chalice fragment came from the floor deposit which also included at least 37 vessels, mainly conical cups, bowls, jugs and cooking pots, together with eight stone tools, a bead, sealstones and small pieces of glass paste (Warren (1981) 80). It is not yet entirely clear how this floor deposit relates to the material from the upper floor, or its role within the cult, though there seem to be sufficient indications that this room in some way participated in the cult activities of the area.

The contents of the shrine Treasury at Zakros (a) included some very fine and classic examples of chalices, made of stone. Seven, whole or fragmentary, were found here in various materials: limestone, gabbro, alabaster and a beautiful example in white-spotted obsidian (Platon (1963) 180-81, pl.149, (1971) 142-43; Warren (1969) 36-37). These examples have some slight variations in shape, for instance one has a quatrefoil, four-lobed, form; decoration also varies, one for instance is carved with horizontal flutings. Several have mouldings around their bases, which are often made separately, and stand on clearly defined stems. In this context the chalices are found among other stone ritual vessels including many rhytons and a

libation jug, all stored in the treasury of the shrine.

The second rural sanctuary which included chalices amongst its ritual equipment was Kato Syme, where examples were found in clay and stone. A large number, not yet specified, came from the site. Those mentioned seem to have partly come from the rooms of the large building at the site, which may have had only a subsidiary function and which also contain the tubular vessel and other ritual equipment (Lembessi (1972) 198, (1973a) 194, (1973b) 119, (1976a) 179, (1977a) 407). Some were of quite large size and bear traces of painted decoration of reeds. Some of these vessels of chalice shape have already been discussed in the section on kernoi as they had the peculiar feature of the addition of very small clay receptacles, which may have been for the reception of individual grains. Other clay chalices from the same area had a variety of added clay decoration. Though final numbers are not yet available it seems that quite a large quantity of these vessels must have been present at the site..

A stone chalice came from room 4 of the same building (Lembessi (1977a) 407, Fig.216a, (1977b) 180) which has a similar small tubes found on the clay version mentioned above, but this time on the outside around the base of its body. In the same room were stone libation tables and many broken clay vessels.

Examples of clay, and fewer stone, chalices came also from the sacrificial layers outside the building, mixed in with animal remains and other vessels including many stone offering tables (Lembessi (1981a) 391, (1981c) 18, (1983) 87, (1984) 101).

The chalice, especially in clay but also in stone, seems to have been in frequent use at the shrine of Kato Syme in the neopalatial period; many more examples have so far come from this site than any other. They were found among ritual equipment perhaps being stored in the subsidiary building, but also in the deposits formed by sacrifices and ritual activity covering large areas of the shrine.

The above are examples of chalices found in shrines used in the sample, but there is one important other piece to be mentioned, the Chieftain Cup from Haghia Triadha (Paribeni (1903) 324; Evans (1928) 742ff., 790ff.; Forsdyke (1952); Marinatos and Hirmer (1960) pls.100-102; Warren (1969) 37; Koehl (1986). This is a slightly different form but is included in the category of chalice by Warren (*loc.cit.*). It is carved with a relief scene concerned with some ritual process, variously interpreted, most recently (Koehl *loc.cit.*) as depicting a stage in the initiation of a Cretan youth.

Conclusions

The chalice, as also the tubular vessel, is confined to settlement and rural shrines, with none so far reported from either peak or cave sanctuaries. It is also limited chronologically to the protopalatial and more especially the neopalatial periods.

Although actual numbers of sites where the vessels has been found are not great it does seem to have been an important religious vesel, as shown by the unusual adaptations of some of the Kato Syme examples, the fine Zakros vases and the religious scene carved on the Chieftain Cup. There is also iconographic evidence to demonstrate its cult role, most importantly the Tiryns gold ring showing a goddess holding one of these vessels (CMS I n.179; Marinatos and Hirmer (1960) pl.207a).

An alternative name often applied to this vessel is that of communion cup (Platon (1971) 142; Lembessi (1973a) 193-4), which carries with it strong implications of its assumed function. The chalice may have held a special liquid offering, though whether this was shared and drunk, an action inherent in the word communion, is not certain, though of course in shape it is a drinking vessel.

The scene on the Tiryns ring shows a procession

of daemons carrying libation jugs towards a seated female figure, presumed to be a goddess, who holds what is clearly a chalice. The intention seems to be that the contents of the jugs are being offered to the goddess by being poured into the chalice, which therefore in this scene has a special significance (Evans (1935) 460-62, Fig.385).

The chalice found in the western room at Archanes-Anemospilia must have been used in connection with the ritual activities taking place there, which may have included blood sacrifices. The unusual version found at Kato Syme, another rural sanctuary, seems on the other hand to have held solid offerings in the form of grains placed in the small receptacles, though it may also have held liquids and thus combined the function of a chalice with that of a kernos.

The evidence suggests that the chalice had a significant role in ritual activity, at least in the worship at rural and settlement site shrines, probably as part of liquid offerings resulting from sacrifices, though whether these were shared among the celebrants is not known. The evidence of the Tiryns gold ring, where the chalice is seen in the hands of the goddess, might be taken as suggesting that it was reserved for people with high status in the cult; however set against this is the presence of many of these vessels

in the sacrificial layers at Kato Syme, which implies they were in frequent and communal use.

Libation jug

This is a particular shape of jug with a tall neck, high slanting spout and up-curving handle, which has been ascribed a special cult function on the basis of mainly iconographic evidence since few have actually been discovered *in corpore*, indeed only one comes from the sample of sites used.

Jugs of this form are found represented in a variety of settings and scenes well discussed by Nilsson ((1950) 147-50; also Evans (1935) 447ff.) and more recently in detail by Sturmer (1985) who considers the various iconographic treatments of the beaked or spouted jug. Some of these scenes have led to the attachment to this vessel of the descriptive term 'libation jug'. Perhaps the clearest is that on the Haghia Triadha sarcophagus where a jug of this shape appears above the altar (Long (1974) 65-66; Sturmer *op.cit.* 123) in an unmistakeably ritual setting amongst other equipment and seems intended for pouring a libation into the bowl resting on the altar (Marinatos,N. (1986) 26).

A jug of the same shape is also sometimes seen between the horns of the horns of consecration (Nilsson (1950) 147, no.40, Fig.52; Sturmer *loc.cit.* 132,

Fig.19), which demonstrates not only its important place in the range of Minoan cult equipment, as the objects most frequently seen in this position are the double axe or the sacred bough, so that it may even have been elevated to the status of cult symbol, but also as has been shown recently its relationship to the sacrificial bull and the libation made of its blood (Marinatos,N. *op.cit.* 29).

It is also seen quite frequently in the hands of the Minoan genii or daemon, a strange composite creature in the Cretan cosmogony (Evans (1935) 452ff.; Nilsson (1950) 376ff.; Baurain (1985); Sturmer (1985) 120-22, figs.1-4), the most remarkable scenes perhaps being on the Tiryns gold ring, already mentioned in connection with the chalice, where this jug is seen being carried by a procession of such daemons apparently in the act of making a libation from them to a seated goddess (CMS I no.179; Evans (1935) 460, Fig.385; Marinatos and Hirmer (1960) pl.207 top); and on the stone carved triton shell from Mallia recently discovered (Baurain and Darcque (1983); Baurain (1985), esp.95 and Fig.1; Sturmer *op.cit.* 120). On this is depicted a scene with two daemons, facing each other, one in the act of pouring something from a jug of this form though here with a double spout, possibly into a receptacle held by the other. The libation jug in

fact seems to have a special connection with this creature and is only ever seen in their hands in scenes of worship and is not known to be depicted in human hands. The closest asociation with humans is on the Haghia Triadha sarcophagus where it appears in a scene with humans but seems to be floating free, and possibly on a seal from Naxos (Sturmer *op.cit.* 123, Fig.5) where it is shown together with a conical rhyton, also used for libations, and a large bucket-shaped vessel, on a table next to which stands a male figure, arms out-stretched over the cult vessels, holding a spear.

In view of this important place the libation jug seems to have held in cult practices it is perhaps surprising that so few examples have been found, the most certain one being from the shrine treasury at Zakros (a) (Platon (1971) 136; Warren (1969) 47,48). This is a fine example of Egyptian alabaster and was found amongst a store of other beautiful ritual vessels, including many rhytons of different forms which also were used for liquid offerings, a connection seen as mentioned above on the seal from Naxos. Warren suggests also that three jugs of similar shape from Phaistos may have had a ritual use (*loc.cit.*).

The other most famous example of a jug of this shape is the one in silver from a shaft grave at Mycenae (Nilsson (1950) 150, Fig.59). One possibility

is that this type of jug was most often made in metals, often precious, as has indeed been suggested for those depicted on the Haghia Triadha sarcophagus and the Mallia triton (Long (1974) 66; Baurain and Darcque (1983) 39), and this may go some way in explaining why so few examples of this apparently important ritual vessel have survived. Baurain and Darcque ((1983) 37, n.112) give a list with references of jugs in several materials from the Aegean of a related shape.

This particular form of jug, as its name and available iconographic evidence show, seems to have been used for pouring libations of some sort of liquid, probably into other vessels, such as chalices or even perhaps rhytons. Alternatively they may also have been used for purifications or ritual cleansing, though the evidence for this is not so strong; or again, given their association with the sacred bough in iconographic sources they may have been involved in ritual watering in connection with vegetational ceremonies (Evans (1935) 450ff.).

Ladle

Prepalatial	-	
Protopalatial	-	
Neopalatial I	settlement:	Phaistos (d)
	peak sanc:	Juktas
Neopalatial II	-	
Postpalatial	peak sanc:	Juktas

Ladle

Relatively few examples of this vessel, the majority made of stone, were known until recently when the excavations of the peak sanctuary of Juktas have turned up large numbers. The actual number of sites where ladles have been found however is still limited: in this sample a single one comes from a settlement site, Phaistos (d), and as mentioned a great many from the peak sanctuary of Juktas. The Phaistos example is dated to the neopalatial I period, and the Juktas vessels also all probably belong to the same period, though the contexts they come from are sometimes mixed.

A clay version of EM date and perhaps a prototype of the later examples was found in an investigation below the Loomweight Basement area at Knossos (Evans (1921) 623, Fig.460).

Neopalatial I

In room 8 of the four-roomed sanctuary of the west wing at Phaistos (d), were found a small but significant collection of stone vessels, amongst which was a ladle of serpentine (Pernier (1902) 42; Pernier and Banti (1951) 109-110, Fig.55a and 243i; Warren (1969) 49). The other vessels included three libation

tables, as well as a lamp and a mortar and pestle. The vessels were found in a group and may have been stored together perhaps on a shelf. The room itself probably was a store room or preparation room, the shrine room proper being room 10. The ladle therefore comes from a level 2 context, and as such it provides no direct evidence of whether it was used in actual worship in the shrine room or for what purpose, though as it was found with libation tables it can perhaps be speculated that it may also have been used for offerings. Its shape and size do not make it seem very practical and these factors together with its shallowness discount also its use as a lamp (Pernier and Banti *loc.cit.*) although this has been suggested as a possible function for this class of vessel as a whole (Persson (1943) 103-104,106).

The only other site where this vessel has been found is Juktas, in the sample of sites used here. Before the current excavations three were recorded from this site or area (Evans (1921) 159,622-24; Warren (1969) 49), one of which was believed to have been inscribed with Linear A though this now is doubted (Karetsou (1978a) 249, n.3). More recently 45 have been discovered at the site (Karetsou (1974a) 236, (1975a) 337, Fig.4 and pl.265b, (1976a) 415, (1978a) 257, (1980a) 345,347,349, Fig.6, (1984) 114, lecture 20/5.87), both in the open-air areas of the shrine in

the pyre layers and also from room III of the neopalatial wing of rooms, where they may have been stored. The majority however came from the outdoor areas where the ritual activity involving bonfires and the deposition of votive offerings took place, suggesting that they were used in this process, perhaps as one form of offering table, though their precise role and how this differed from that of the libation tables also found here in large numbers, if at all, is uncertain. It does seem remarkable that so many examples have come from this one site when the vessel is comparatively very rare elsewhere.

There is also a single recorded, very unusual, clay example which dates to the postpalatial period (Karetsou (1976a) 417). It was found, together with other LMIIIB ceramics, outside the wall of room III where many offerings were found.

Conclusions

There are some other sites where this vessel has been found, all with some cult associations (Warren (1969) 49) and its purpose seems certainly ritual. This purpose may be in connection with the making of offerings, suggested by the discovery of this vessel in the votive layers at Juktas, together with objects

which have been dedicated, and other form of offering vessel, notably libation tables.

A possible iconographic source exists providing evidence of their use; this is a fragment of a stone relief rhyton showing two men in procession, their arms outstretched in a gesture of offering, holding a vessel very close in shape to the ladles discussed above, though it is not absolutely certain that this vessel is being depicted (Evans (1902-03) 129,130, Fig.85 and (1928) 752-53, Fig.486; Warren (1969) 85). Behind the figures is a building of isodomic masonry topped by horns of consecration, indicating its cultic character, and also present are two of the flagpoles seen also on the Peak Sanctuary rhyton from Zakros, therefore also suggesting that the building is a shrine (Alexiou (1963a). If the vessels shown are indeed ladles, which they certainly closely resemble, then this is evidence of their use as offering vessels.

Warren has further suggested ((1969) 175, n.3) that this fragment belongs to the same rhyton as another which also shows a male figure, this time bending over a basket or bowl, probably also containing offerings, in front of a building of similar masonry, crowned with horns and with the same flagpoles as the above (Alexiou (1959)). The shrine building on this latter piece is definitely intended to be seen as in a

rocky landscape or mountain setting, and the building in the processional piece seems to be shown as rising up a slope. Perhaps therefore the whole scene was one of a procession of men, carrying offerings, winding its way up to a mountain or peak sanctuary. This in turn would seem to connect closely with the remarkable concentration of this type of vessel at Juktas.

III

Votive objects

and

Cult objects

Double axe and stands

Prepalatial	-	
Protopalatial	settlement:	Mallia (a)
	peak:	Juktas
		Vrysinas
Neopalatial I	settlement:	Palaikastro (b)
		Phaistos (c)
		Zakros (a)
		Mallia (e)
		Phaistos (d)
	cave:	Arkalochori
		Psychro
		Skoteino
Neopalatial II	settlement:	Knossos (j)
		Knossos (l)
Postpalatial	settlement:	Gournia
		Haghia Triadha (c)
		Karphi (f)
		Knossos (m)
	rural:	Kato Syme
	cave:	Phaneromeni

Double axe and stands

Included here are all examples of this object, both full-size and miniature, as well as relief decoration and attachments to other objects. Also considered here are the stands for double axes, often found separately. Double axes are found in settlement sites of all periods, except the prepalatial, though only in a fairly low proportion of sites in each, and often in an emblematic form. It is relatively very scarce in peak sanctuaries, but not entirely absent as once was thought. It is more common in cave sanctuaries of the neopalatial I and postpalatial periods when it seems to be a quite important element in the equipment found in these shrines. In the postpalatial period also occurs the only example of a rural shrine to contain a double axe.

Protopalatial

In this period only one settlement site from the sample of five contained a double axe, and that in emblematic form, as decoration on a vessel. In the shrine room, therefore a level 1 context, of the independent sanctuary at Mallia (a), the bottom of a tripod vessel was found up-turned on the clay

rectangular offering table fixed in the floor of the room. In the centre of this fragment was a double axe mark in very light relief but clear and well-made (Poursat (1966) 524,536, Fig.22; van Effenterre (1980) 444). The significance of the mark here is ambiguous: whether it is a specific attribute of a deity, or, as seems more likely, a symbol denoting the sacred use of the vessel, since it seems to have been a rather rough vessel. It may have been in this spot for a specific purpose, as van Effenterre has suggested (*loc.cit.*), that of extinguishing the fires on the hearth/offering table after its final use, and the position of the vessel on the offering table together with the double axe sign does seem significant.

It is interesting to note that in the store room of the same shrine a fragment of a rim of another vessel was found to which was attached a miniature pair of horns of consecration.

Also in this period one, and probably two depending on dating, peak sanctuaries contain double axes. The more certainly belonging to this period are those from Juktas. A hoard of bronze double axes was discovered here, in close proximity to the stepped altar in a sort of pit, in the protopalatial ash layer (Karetsou (1974) 232-33, figs.172a,173a, (1978a) 249,

(1981b) 146, Fig.14). There were 32 smaller axes (0.09-0.12m) made of sheet metal having no shaft hole; two were larger (0.24m long) and made of two pieces of metal joined together with a hole for the shaft.

Another bronze votive axe with a shaft hole was found at the site in an investigation below the floor of room III of the neopalatial wing of rooms there (Karetsou (1980) 345). It was found together with three bronze votive chisels and two ladle-shaped stone vessels. Although no date is specified it is presumed that as they came from below the floor level of the room these objects antedate its construction.

Also possibly dating to this period are two bronze miniature double axes from Vrysinas (0.036m and 0.05m long) (Davaras (1974) 211). Their size shows that they were of a votive nature, and were found with votive knives and blades, as well as bull rhytons, human and animal figurines, and a model pair of horns of consecration. Although the date of these finds is not specified, they seem to be from the protopalatial period.

The Juktas axes are certainly the largest number of double axes from any peak sanctuary and seem to be a deliberately buried votive deposit in the ash layer. This hoard, together with the two smaller examples from

Vrysinas, has to change the previously held idea that this object was never found at peak sactuaries and the offered explanation for this absence based on the nature of the cult taking place at such sites and the character of the divinity worshipped (Nilsson (1950) 74; Platon (1951) 104,150,158).

Neopalatial I

Double axes come from two settlement sites in this period, as well as two instances of shrines with incised double axes and one where a double axe stand was found. The first two are the first in the sample where the actual object was present in a settlement shrine rather than its representational form.

In room 63d, a lustral basin, at Phaistos (c), nine bronze double axes were found piled together near the staircase leading into the basin (Gesell (1985) 129, on re-examining the original reports concludes that they may have in fact come from the fill of the room). They were of a size and manufacture which would have allowed a daily practical use, but none showed any sign of having been used at all (Pernier (1901) 281, (1902) 103; Pernier and Banti (1951) 172), leading to the suggestion that they were deposited as votives.

To the same cult assemblage belonged two pairs of miniature horns of consecration, also apparently votive, various rhytons and other vessels.

The other shrine of the period to contain double axes was the central shrine at Zakros (a), where several were found, all votive or decorative. Some had fallen from an upper floor, where cultic material must also have been situated.

In the shrine room itself, room XXIII, was found a pedestalled cup decorated with painted double axes (Platon (1963) 175, (1971) 125). This is perhaps more of a decorative motif with a religious basis, signifying the cultic association of the vessel (Betancourt (1985) 147-48) and perhaps nothing more specific.

More decorative double axes came from the Treasury which are in plastic form and may have had more intrinsic significance because of the unusual piece they were part of. This took the form of a large bronze wreath, of uncertain use, made up of a series of joined double axes with shafts arranged on a slant (Platon (1963) 183, (1971) 145). Also kept in this treasury were two larger double axes, complete in themselves, made of sheet bronze. One of these, the larger (0.45m long), with reduplicated edges, is

beautifully decorated with an engraved and cut-out pattern of leaves and lily flowers (Platon (1963) 181-83, Fig.151g, (1971) 145). A third, smaller bronze double axe was also found here which seems to have been of practical use, together with many other tools (Platon (1963) 183, (1971) 145).

Finally amongst a deposit fallen from an upper floor which consisted in part of faience and ivory inlays were some in the shape of double axes with the blades decorated by engraved lines (Platon (1963) 178, (1971) 131) and some were combined with sacral knots. These probably originally would have decorated wooden boxes, now disintegrated, which from the attached explicitly religious symbolism presumably must have had a function connected with the cult activity of the area.

Another, quite particular, form the double axe takes is that of an incised sign on architecture, most often thought to be associated especially with pillar crypts, but found elsewhere, and believed in certain circumstances to have had a religious import (Evans (1900-1901) 22, n.1; Nilsson (1950) 246-47; Rutkowski (1986) 41). It is found also in non-religious contexts (e.g. Evans (1921) 449, Fig.322) and may not always have had the same significance; its presence in some shrines, due to its positioning and frequency,

does however seem to merit an explanation more than merely utilitarian as a masons' mark.

In the sample of sites used here this use of the double axe symbol occurs in two shrines in the neopalatial I period, though other instances do exist (Gesell (1985) 35, n.s.122,123; Rutkowski (1986) 29-31).

The first is in the pillar crypt VII 4 at Mallia (e) where double axes are engraved on the two lower courses of the southern pillar, though Gesell has noted three (Chapouthier and Charbonneaux (1928) 28; Platon (1954) 450; Pelon (1980a) 165; van Effenterre (1980) II, 348,449; Gesell (1985) 27, n.53; Rutkowski (1986) 30). On the uppermost surviving course of the same pillar was a star, and a trident and a star were incised on the northern pillar in this room. Such a particular choice of symbols, reminiscent of those on the altar from XVIII 1 also at Mallia (h), and their careful positioning does seem indicative of a deliberate meaning.

The significance of the incised double axes at the other neopalatial I shrine is less certain. In room 8 of the four-roomed bench-type shrine at Phaistos (d), itself probably a preparation or store room, a double axe was incised on one of the blocks of the west

façade. In room 11 of the same complex, again a subsidiary room, double axes were incised on two of the blocks of the foundation of the south wall (Pernier and Banti (1951) 105,115; Gesell (1985) 127). The positioning of these seems to have no particular significance or relation to any special feature, other than possibly marking the rooms as being under divine protection, but they do not seem much removed from similar signs found elsewhere and may, like them, have been masons' marks.

Two stone stands for double axes which had fallen, along with other cult equipment from an upper storey shrine, were found in Block N at Palaikastro (b). They were both of limestone and of the truncated pyramidal form, one with plain and the other stepped sides, 0.29m and 0.34m high respectively (Hood (1962-63) 32; Sackett, Popham and Warren (1965) 257,313). No double axes were found in the assemblage which did however include a pair of small horns of consecration; the association of which object with the double axe occurred above at Phaistos (c) and does again later.

This is the first period in which double axes have been reported from cave sanctuaries, and it seems also to be the period of their greatest frequency of cult use in this type of shrine (Tyree (1974) 82-83).

Three sites in the sample used here: Arkalochori, Psychro and Skoteino, contained axes in different quantities. A full-sized axe, possibly a tool, came from the area of Kamares, but it is not certain whether it originated from the cave itself or the nearby necropolis; the latter is more likely (Taramelli (1901) 442; Buchholz (1959) 37, n.12; Faure (1964) 179; Tyree (1974) 83, n.31).

Over 130 double axes of different sizes and materials were recovered from the cave of Arkalochori at various times, and this figure would probably be much larger if the cave had not been looted over many years. All the axes from this cave are votive since they are too small and frail and many have no shaft holes, as well as being of precious metals, to be of any practical use. Hazzidakis reported 19 axes from his excavations, 18 of bronze and 1 of silver ((1912-13) 37,44-47). Later excavation produced over 100 more, including 25 of gold and 6 silver, all also votive for the same reasons given above (Marinatos (1934) 252, Fig.3; (1935a) 214-16, figs.16-18; (1935b) 250-52, Fig.4; Boufides (1953-54) 62-65; Pope (1956) 134-35). These were reported as being scattered throughout the newly investigated area of the cave, but with two noticeable concentrations: one approximately in the centre of the cave in an area about $2m^2$ where

the gold axes were found together with other offerings of precious metals; and the second in the innermost recess of the cave where the axes, together with blades and swords, all seemed to be of bronze (Marinatos (1935a) 214-15). On the basis of the first mentioned concentration the excavator believed that an altar of some form must originally have stood on this spot adorned by these precious objects (Marinatos *(oc.cit.* and (1962) 89).

The axes themselves were often very beautiful and finely decorated with mainly linear designs. They varied from just a few centimetres in length up to 60-70cms, sometimes furnished with shafts of bronze and precious metals, others had holes and rings for suspension. One gold one has a Linear A inscription, and there is another, which is one of the largest though still miniature, acquired by the Boston Museum (Vermeule (1959); Young (1959), which almost certainly originated from this cave, demonstrating again that the number recovered by official excavations is not the total there originally were. A fragment of a silver axe had also a Linear A inscription, and the shaft of a bronze one had a hieroglyphic inscription (Marinatos (1935a) 216; Boufides (1953-54) 64; Pope *(oc.cit.*).

This spectacular treasure of double axes is dated entirely to this period both on stylistic grounds as

well as archaeological, since the part of the cave they were found in seems to have been blocked off by a roof fall after this date. As mentioned above they were found together with very numerous metal blades and swords, also apparently votive. A few sherds were discovered belonging to this date and a strange small gold block, but the overwhelming majority of objects from this cave are the votive weapons and blades, all models, symbolic of the full-size versions. This together with the lack of any practical tools or other equipment or traces of fire, would seem to contradict Marinatos' theory, as he himself admitted ((1962) 92), that this was a metal workers' forge.

Fewer axes were recovered from Psychro, about 30 all together (Tyree (1974) 86-87), all of bronze or almost pure copper. Hogarth reports finding 18 in the lower grotto which were mainly embedded in the crevices of the natural concretions, and none from the upper (Hogarth 91899-1900) 100,108-109, Fig.40). Two of those found here still retained shafts and Hogarth noted that the bronze pins also in the area were probably originally shafts. They are all miniature votive axes of differing shapes and methods of manufacture. The largest is 28cms long and has incised linear decoration, comparable with examples from Arkalochori, thus assisting in dating; Boardman

believes that most can safely be presumed to be of MMIII-LMI date (Boardman (1961) 42-45).

In the upper part of the cave Evans discovered a double axe with nearby a stepped pyramidal steatite stand, probably also of this date (Evans (1921) 438, Fig.315; Boardman (1961) 42; Faure (1964) 152; Tyree (1974) 87). Other double axes had been found in the upper cave deposits earlier but with little idea given of the actual findspots (Halbherr and Orsi (1888) 908; Evans (1897) 356).

The axe from the upper cave with its stand would have been contemporary with and must be seen in the same context as, the large masonry altar which was accompanied by the remains of sacrifices and stone libation tables and pottery. Also in the upper grotto belonging to this period were bronze and clay animal figurines. Bronze human figurines were found only in the lower part of the cave where the majority of the double axes also came from, and although dating is imprecise many must be contemporary. Fewer bronze blades and knives came from this cave than Arkalochori and it is uncertain whether these date to the postpalatial period rather than this, though some may (Boardman (1961) 24; Faure (1964) 153; Tyree (1974) 74,88).

A bronze double axe was reported from the cave of Skoteino (Taramelli (1901) 442; Nilsson (1950) 57,198; Boardman (1961) 44, n.4; Faure (1964) 164; Tyree (1974) 84) which is not well published but which Boardman (*loc.cit.*) says is not votive. It is probable that more axes would originally have belonged to this cave which has been extensively looted.

Neopalatial II

The only instances of double axes from this particular period are of the class discussed separately in the previous section: that of incised signs on architecture, and a double axe stand without an axe.

In this instance the incised signs do appear strongly to have a real significance. In the Central Palace sanctuary at Knossos (j) the double axe was incised 13 times on the pillar of the East Crypt and 17 on that in the West, this means they appear on all visible faces of each surviving block of the pillars, except the west face of the eastern pillar which has none at all, and includes the tops (Evans (1899-1900) 32, (1928) 818; Gesell (1985) 35,87). No other type of incised sign was reported from the rooms. Such a frequency, and the postion on the pillars themselves and only them, must reflect some deliberate cult

intention and function.

A stone stand was found in another neopalatial II shrine at Knossos (l): the High Priest's House. This was of the usual pyramidal shape with plain sides, carved from gypsum and 0.37m high (Evans (1935) 211-213, Fig.160b; Sackett, Popham and Warren (1965) 313). The upper surface however was flat and without a socket for an axe and Evans believed that it was in fact a pedestal on which would have been placed the actual stand with axe. He restored the position of this base next to the altar with incurved sides on the back dais of the shrine with a balancing stand, not found, on the other side. No axes were found in the shrine.

<u>Postpalatial</u>

In this period four settlement site shrines in the sample contained double axes in different forms.

In the shrine at Gournia it appeared, surmounted by a disc, as relief decoration on a fragment of a vessel, thought to be a pithos but, it was later suggested, might have been a tubular vessel (Hawes *et al.* (1908) 47,48, pl.XI, 8; Russell (1979) 30).

Double axes of bronze and painted terracotta were found in the interesting cult deposit of the Piazzale dei Sacelli at Haghia Triadha (c), and pyramidal bases

found in the area may also have belonged to the deposit. Double axes were also present in the incised form on paving slabs in the vicinity, possibly to mark its sanctity (Halbherr (1905a) 241 and (1905b) 370; Banti (1941-43) 58; Gesell (1985) Fig.88)

The terracotta examples are very unusual, and obviously votive as probably are the bronze ones also though few details are available. The sacred area may have been demarcated by both the incised signs and possibly the votive axes in the stands, in which way the double axe could be seen as serving a similar function to one of those suggested for the horns of consecration: that of marking the sanctity of an area or object. Horns of consecration did also belong to the same deposit, but these were of unusual form, being of terracotta with central projections, and so could not have supported double axes as those from the Shrine of the Double Axes are supposed to have done.

The Shrine of the Double Axes, Knossos (m), despite its name contained only one model double axe when excavated. This was a miniature one made of steatite (c.0.02m high) and had reduplicated edges. It was found resting against one of the two pairs of horns of consecration standing on the bench-altar which also supported the figurines (Evans (1901-02) 101,

Fig.57; (1928) 336, Fig.191) including one of the goddess with up-raised hands. The two pairs of horns each had a hole or socket between the horns which Evans believed was for the insertion of larger double axes, hence the name given to the shrine. This is the first instance of a double axe being found on an altar, and its association with both the horns of consecration and the goddess with up-raised hands is very clear and interesting.

The postpalatial period is the first in which a double axe has been found in a rural sanctuary: that of Kato Syme, though the dating is not certain. In mixed layers with ceramics dating from MMIII/LMI through to the 8th century pieces from three bronze double axes and fragments of three clay ones were found (Lembessi (1984) 98-99). This is the only information so far available about this rather unusual find for a rural sanctuary but the only comparison for votive clay axes are those from Haghia Triadha, Piazzale dei Sacelli, mentioned above. This comparison, together with the fact that many of the other votive objects reported from this area were LMIII, are the only indications of date. The other objects mentioned with the axes included wheelmade animals, also comparable to those from the Piazzale dei Sacelli, but which stood on ingot shaped bases with no known parallel from other shrines

in Crete, as well as the strange horns of consecration shaped object which might have been a sceptre head.

The cave at Phaneromeni is the only one which contains double axes in this period, as it seems almost certain that those from Arkalochori and Psychro are neopalatial.

The cave at Phaneromeni has never been fully published but seems to have already been in cult use in LMI though the only objects from that period were pottery and offering tables. Three double axes were found, one of which was gold, and have been dated to LMIII (Marinatos (1937) 223; Faure (1964) 160; Tyree (1974) 99,106). The gold example had recurving blades and a hollow shaft. The other finds also probably belonging to this period from the cave included bronze male adorant figures and some bronze blades, as well as ceramic fragments.

Conclusions

The example of double axes, in all forms, and stands for them, cover all types of sanctuary site and all periods except the prepalatial. Of course other double axes have been found elsewhere than at sites used in this sample, perhaps most notably the large ones from the villa at Nirou Chani (Xanthoudides (1922-

28) 5-7,10,12-13).

The double axe therefore seems to have been a universal symbol in Minoan religion, and that its role was on the whole symbolic is demonstrated by the fact that by far the majority of examples here are votive, model or in decorative form, sometimes extremely beautiful and elaborate, and showing a great diversity of treatments; more so than possibly any other piece of cult equipment. None seem to have served any practical function whatever in the shrines they belonged to, but the precise role of this symbol and its derivation are not so obvious.

The role may have varied somewhat according to what form the axe took, for instance the incised sign found in settlement sites, especially pillar crypts, may have had a slightly different function to the votive gold axes from the caves, according to the various associations.

In several shrines the double axe was associated with the horns of consecration, either in model form or full-sized versions, and this connection, though not found by any means in every shrine where the axe occurs, does give support to the theory that the double axe's significance arose from its use in stunning the sacrificial animal, especially the bull (Nilsson (1950)

227-29; Sakellarakis (1970) 195; Marinatos,N. (1985) 22). This seems a more plausible explanation than that which has it as the symbol of a male god (Cook,A.B. (1914-40) 233).

Apparently no axes capable of being used in this way were found in the shrines where the votive form is present, but this could be accounted for by the fact that, as N. Marinatos has pointed out, the act of sacrifice probably took place elsewhere (*op.cit.* 14-22) and only the symbolic association of the axe with the sacrifice is represented in the shrine. The remains of sacrifices were found at the sites of Juktas, Vrysinas, possibly Skoteino, Psychro, Haghia Triadha, Piazzale dei Sacelli and Kato Syme, that is all the cave sites where the axe was present and the only rural sanctuary and the large open-air deposit at Haghia Triadha, but none of the indoor settlement site shrines; though in the cases mentioned above the axes and sacrificial remains are not always in direct juxtaposition.

The martial aspect of the axe may have been important at Arkalochori, and to a lesser extent Psychro, where the double axes were found in great numbers together with votive blades and swords. The significance of the axe may have varied from period to period (Buchholz (1959) 16-17) and Tyree believes

also, in her study of cave sanctuaries only, from cave to cave ((1974) 94).

Until relatively recently no double axes had been found at peak sanctuaries, but the discovery of an important hoard at Juktas and an example at Vrysinas means that no longer can this type of sanctuary be considered as having no association with this important cult symbol and all the implications arising from that concerning the nature of the cult and the character of the deity(s) worshipped. However it has so far been found only at these two sites, which is slightly fewer than the number of peak sanctuaries where model horns of consecration were found. The examples which have come from the two peaks date only to the protopalatial period, when no cave or rural sanctuaries included double axes. The only rural sanctuary where it has so far been found is at Kato Syme in the postpalatial period, where possible parallels can be drawn with the large open-air deposit at the settlement site of Haghia Triadha (c), as unusual terracotta models, which do not seem to have been attached to any other object, came from both, and nowhere else.

Whereas at cave, peak and rural sanctuaries the axe is confined mainly to particular periods, its appearance is chronologically more widespread in

shrines at settlement sites where examples have been found in all periods except the prepalatial, though as with all types of site proportionately the numbers are small. In many of the settlement site shrines also the form the axe takes is at its most literally symbolic, either as applied decoration or incised signs. It is interesting to note that so far the axe has not been found as an attribute applied directly to the goddess figurine, unlike for instance the horns of consecration; axes were however found in the same shrines as cult figurines of the up-raised hands type at Gournia and the Shrine of the Double Axes, Knossos (m), so that the symbol is associated with the cult ceremonies which surround this goddess.

It is also worth remarking that several stands for double axes, as well as the horns of consecration with sockets in the Shrine of the Double Axes, were found in shrines where no suitable or actual axes were present. This may either be because the axe was only brought into the shrine on specific occasions, or, perhaps more likely, they were removed at the time of the abandonment of the shrine or later looted; though the Shrine of the Double Axes at Knossos does appear to have been largely undisturbed.

The Haghia Triadha sarcophagus provides some of the best iconographic evidence of the use of the double

axe in ritual, though here funerary (Long (1974) 35-36,66). On one side two double axes are shown, with reduplicated blades and linear decoration, in stepped pyramidal bases; two birds perch on the axes. These axes are part of the pouring scene and for this reason Long believes that they are symbols of the goddess or goddesses, a theory which Buchholz had propounded for double axes as a whole (Buchholz (1959) 16-17; Tyree (1974) *loc.cit.* and 39), though, as has been noted above, the axe has never been found as an attribute of the goddess figurines nor does it appear to have been itself an object of worship. Further to this a single double axe, again with reduplicated blades and linear decoration is depicted on the side with the bull sacrifice also. It is shown between the stand or altar with the woman standing over it, and the probable shrine building with the tree and horns of consecration. Thus the connection between the double axe and the bull sacrifice is here maintained. Other iconographic evidence, from seals, has been collected by Nilsson (1950) 231) which shows the axe between bulls' horns and again demonstrates this association.

The double axe is a universal symbol in Minoan religion, found in all types of sanctuary and not associated particularly, or excluded from, any and the forms of worship taking place in each, though the

precise significance may have varied somewhat. The theory that its overall significance originates from its connection to the important ritual of the sacrifice of the bull does seem to gain some support from the evidence. From this origin the importance and role of the axe as a symbol may have developed, and in some way it became associated also with the spirit of the deity, who was the recipient of the sacrifice.

Horns of consecration - model/decorative

Prepalatial	-	
Protopalatial	settlement:	Knossos (a)
		Mallia (a)
	rural:	Piskokephalo
	peak:	Traostalos
		Vrysinas
Neopalatial I	settlement	Mallia (l)
		Palaikastro (b)
		Palaikastro (c)
		Phaistos (c)
		Zakros (b)
	peak:	Juktas
		Petsophas
	cave:	Psychro
Neopalatial II	-	
Postpalatial	settlement:	Gazi
		Gournia
		Haghia Triadha (c)
		Kannia
		Karphi (a)
		Karphi (b)
	rural:	Kato Syme ?

Horns of consecration - model/decorative

There are more examples overall of this category of horns of consecration than the full-size ones considered earlier. However included here are a wide variety of types, including separate models, attachments to other objects and purely representational forms.

Numerically most examples occur in settlement sites and this is true of all periods, but proportionately they are also quite a significant feature of peak sanctuaries, at least in the protopalatial period.

All site types are again represented, as with the full-size version; two rural sanctuaries and one cave contained model horns as well as the settlement and peak sanctuaries. The chronological distribution also follows somewhat that of the larger horns of consecration, with no examples recorded from the prepalatial period. There are more protopalatial sites in this votive category and the definite increase from neopalatial times on, apparent for the earlier category, is not here so noticeable, with a more even chronological pattern of occurrence through the periods after the prepalatial.

Protopalatial

In this period two of five settlement sites contained this object. Of the two one is from a deposit which had fallen from above: Knossos (a), and while it probably fell from a shrine room this is no longer sure and its architectural associations are lost. The other is from a primary, that is not modified shrine, but was found in a subsidiary room, and so is level 2.

The first example is from the Loomweight Basement Deposit at Knossos (a). The deposit contained several terracotta models, including parts of altars, shrines, columns topped by birds, a miniature altar with incurved sides, a palanquin, triton shells and miniature vessels, as well as other vessels (Evans (1901-02) 23-32 and (1921) 221-24,248-70). One of the model altars, a rectangular base, was surmounted by model horns of consecration. Another, more fragmentary, had similar attachments. These presumably are true representations of the form that actual altars might take, and the horns perhaps serve to mark a place of special sanctity as well as consecrating whatever stood on the altar. Larger horns have been found on altars of the bench form in

the postpalatial shrines at Knossos in the Shrine of the Double Axes and the Fetish Shrine in the Little Palace (m) and (n).

The other example comes from Mallia (a), from the store room of an independent sanctuary. The horns of consecration here took the form of a model attached to the rim of a vesel (Poursat (1966) 524,536, Fig.26; Rutkowski (1986) 161, Fig.224). It is only a small fragment of the vessel so that the complete shape is not known, nor whether this fragment was deliberately preserved as having some significance (Renfrew (1985) 373 suggested that broken figurines had been kept and stored in the shrine at Phylakopi, though it might be thought that figurines are of higher status).

Two peak sanctuaries in this period, of a possible nine sampled contained this object, according to the published reports.

A pair of small horns of consecration were found at Traostalos also (Davaras (1978) 393), though no further details are available.

At Vrysinas also a miniature pair of horns of consecration made of clay were found amonst the other votive objects from the site (Davaras (1974) 211).

Another peak sanctuary, Etiani Kephala, not

included in the sample of sites due to lack of detailed reports, has also yielded a pair of model horns of consecration (Davaras-Guide to Hagios Nikolaos Museum Fig.33) which are of unusual form, but have not been mentioned in any of the published accounts of the site. They were made of clay and between the quite slender horns was a very small bowl.

Model horns of consecration have also been found at one rural sanctuary of this peiod: Piskokephalo. These were attached to the cornices of model shrines, similar in some ways to those from the Loomweight Deposit mentioned above. Four model shrines were restored, and fragments existed of others. Of these four two were crowned with miniature horns of consecration, and more were found which may originally have been attached in this way (Platon (1952) 635-36, Fig.16). Here again the miniature horns are models of their full-size counterparts in use as architectural elements, denoting the sanctity of the building, presumably a shrine.

Neopalatial I

In the neopalatial I period four shrines in settlement areas contained model horns of consecration, while in a fifth they were depicted in a fresco on the wall of a lustral basin.

At Mallia (l) in quartier Lambda, region XVII an assemblage of very interesting objects was found. The area had been much disturbed by other building and the excavators were unable to recognise the floor corresponding to LMI nor discover the exact plan of the area. The objects were found in the surface layer and may have fallen from above and cannot therefore be clearly associated with a column base also found here.

Among several model objects including a ship, fragments of figurines and horns of clay bulls, a pair of miniature horns of consecration was also found. They were made of clay and were very small, measuring 0.026m high (van Effenterre (1969) 103, (1980) 448).

At Palaikastro a group of objects was found, also apparently fallen from an upper floor, in block N, (b). This included a pair of miniature horns of consecration of limestone and measuring 0.065m with the tips of the horns missing. Together with this were pyramidal stands for double axes and a piriform rhyton with a handle in the form of the head of an agrimi (Sackett (1963) 620-23; A.Reps. (1962-63); Sackett, Popham and Warren (1965) 257,313, pl.793, Fig.21; Sackett and Popham (1970) 217,238).

Again at Palaikastro, in block B, (c), a small

room, 42, with no architectural features, contained few, but interesting objects. These included a pair of miniature horns of consecration, about 0.04m high (Bosanquet (1902-03) 289; Gesell (1985) 118). With them was a trough with three cupules and two pieces of stalactite (Platon (1930) 162,163).

A lustral basin at Phaistos, room 63d, (c), contained a large assemblage *in situ*, some around the edge of the basin, some on the steps into it and some on the floor of the basin itself. (Gesell (1985) 128-29 discusses some of the discrepancies over exact positions, here the final report is used). On the floor were found two small stone horns of consecration, 0.068m high and 0.08m long, painted red. Not able among the other objects from the room were nine double axes, several rhytons and a beautiful jug with reed decoration (Pernier (1901) 281, (1902) 69,103, (1904) 463-64; Halbherr (1905a) 399, (1905b) 252-53; Pernier (1907) 280-84; Pernier and Banti (1951) 167-81; Platon (1967) 243).

Finally in another lustral basin, room LVIII at Zakros (b), the horns of consecration were depicted in a fresco of obvious religious import. The fresco was on the back wall above the north parapet and though damaged by fire white horns were discernible painted on altar bases on a red background (Platon (1965) 201-07,

(1966) 165-68, (1967) 240-41, (1971) 180-83). The only objects, which included pottery, bones and teeth of animals and a triton shell, were found in the fill of the bath so that no clear indications of the exact activities associated with this room are available.

Two peak sanctuaries in this period contained model horns of consecration. The example from Petsophas is very unusual and quite complex. The shape is that of a double horn but the difference lies in the added relief details depicting smaller horns and an altar (Davaras (1976a). Made of plaster the object measures 0.099m high, and 0.14m wide, and had to be pieced together from many fragments.

The horns themselves were in fact duplicated, which the excavator compares to the known similar reduplication of the blades of double axes, thought to emphasize their sanctity. On the front face in relief are represented three cubiform objects interpreted as altars, and between them two pairs of sacred horns in lower relief. In the centre, behind one of the small square altars is a larger one, in lower relief again, and topped by another pair of horns.

The whole relief decoration is therefore in the form of a tripartite arrangement. Although the top inner surface between the inside pair of main horns was

not preserved it was restored without a socket, since if there had been one it would have penetrated in to the plaster, where no such hole was found.

This complex and unique object was discovered, in pieces, inside the building at the site, and was dated, along with the building, to the MMIII-LMI period. The unusual arrangement of horns and model altars would seem to stress the sanctity both of the object itself and its symbolic role, and of the place it was found in.

Juktas is the only other peak sanctuary in this period at which miniature horns of consecration have so far been reported, and unfortunately the dating is not precise. In an investigation at the site to the north of room V of the neopalatial-built wing of rooms a few objects were recovered including a clay model of sacral horns (Karetsou (1981) 401). The dating here is only on the grounds of their connection with the rooms and it may be clarified in later publication.

One cave only, Psychro, from the sample used here, has an example of this category, and again in representational form. A bronze plaque bought by Evans in 1894 had a cult scene worked on it in repoussé (Evans (1921) 632-35, Fig.470, (1928) 790, n.3; Nilsson (1950) 171, Fig.72; Boardman (1961) 46,49, no.217,

Fig.21, pl.XV; Faure (1964) 156-57). It has been dated to LMI and has some symbols of Linear A also inscribed on it. The scene depicted includes the cosmological symbols of the sun, stars and moon, as well as a bird, fish and a human figure, possibly dancing. A tree occupies the centre of the plaque and immediately above it is a pair of horns with a branch rising between them. Two more pairs appear on either side, at different levels, also with a branch between the horns; the bird is perching on one of these branches.

The precise interpretation of the scene is difficult, but the presence of three pairs of horns, giving the composition a tripartite form, as with the model horns from Petsophas, must be significant. Also important must be the fact that each has above it, at a greater or lesser distance, one each of the cosmological symbols mentioned above. The horns of consecration therefore seem to have a significant role in this ritual scene, consecrating the branches between them, on one of which a bird, often taken to be a sign of epiphany of a deity, perches.

Postpalatial

Six settlement sites in this period contained

model horns of consecration. Of these four were indoor shrines with the architectural associations of the objects preserved to a greater or lesser extent, and two were outdoor shrines.

At Gazi a single shrine room was excavated, containing no remaining features or architectural furnishings. Five female figurines of the goddess - type came from the shrine. The smallest of these (9306) had a pointed headress and on the rim above the forehead was a miniature pair of horns, flanked on either side by a bird (Marinatos,N. (1937) 281; Alexiou (1958) 188-92). The other goddess figurines also have other attachments on the headresses, including poppy heads, a bird and tongue - and palette-shaped objects of unknown meaning.

The small shrine at Gournia again had model horns attached to other objects, this time tubular vessels. Three of the best preserved of these have lifting handles surmounted by horns of consecration, one of which has further a disc between the horns, and another the addition of two snakes twining round its body. The third has signs of such an attachment above the horns, now lost (Hawes *et al.* (1908) 48; Gesell (1976) 248-50,256; Russell (1979) 30). Here then the horns of consecration in miniature form were attached not to the goddess herself but to important cult vessels which

had additional cult symbols. Only one figurine survived to any extent, though there were fragments showing that more than this existed orginally, this goddess has snakes twining round her arms.

The open-air deposit of the Piazzale dei Sacelli at Haghia Triadha (c) also has produced model horns, again attached to other objects, this time, as in earlier periods, to representations of altars. Fragments of these were mentioned in the reports, though without details (Paribeni (1903) 319). Banti ((1941-43) 57-58) described another fragmentary altar with signs of attachment which she believed also to be horns of consecration.

The deposit was large and varied containing human figurines but none apparently were cult idols.

In the villa at Kannia two rooms contained model horns of consecration in different forms, one plastic and one in a representational form. In room III, elongated in shape and without benches and possibly a store room, a miniature pair of horns was found (Levi (1959a) 246). Fragments of a goddess figurine also were in the room, including a head crowned by a long cylindrical object flanked by palettes as on one of the figurines from Gazi. Other palettes were found in the same room and it is feasible that these, along with

the horns and a small clay bird were once attached to figurines also.

Room XV of the same villa, which the excavator suggested may have been an actual shrine room (*loc.cit.* 248) but which Gesell has called a store room ((1985) 78), had a low bench on which still stood a tubular vase. Near this was a stepped stone libation table on one side of which was carved a row of horns of consecration. The same table also had incised 'lettere minoiche' (Levi *op.cit.* 240; Warren (1969) 65).

At Karphi two more examples in model and representational form were found. One of the goddess figurines from room 1 (a), an open-court temple, had a conical headress with a pair of horns of consecration above her forehead (Seiradaki (1960) 29, pl.14). This is the third example of horns of consecration used as an attribute of a goddess in this period (though that from Kannia is only suggested as it was not found attached). The position of the actual horns is very comparable to those on the figure from Gazi, though in that case they were flanked by birds, not present here, so it cannot be stated with any certainty that the same goddess is intended to be represented.

Not all of the other figurines found in the same

shrine had equivalent attributes or headresses. Two have diadems of discs with in one case three larger discs and two birds above, and in the other three birds (Pendlebury *et al.* (1937-38) 76, pl.XXXI).

Another shrine at Karphi, private rather than public as the above, consisted of two rooms, 55 and 57 (b). Room 57 may have been the shrine room proper and found in it was a terracotta stand in the form of a model shrine (Pendlebury *et al. op.cit.* 84; Seiradaki (1960) 28-29) which had a tall rectangular shape surmounted by a circular rim. The sides have cut-out decoration, which in two cases consists of horns of consecration in different arrangements. On the other sides more horns were painted, positioned at the base of what appear to be stepped pillars. On the corners at the top are attached small recumbent animals. This is another example of the use of the symbolic form of horns of consecration, in an architectural role on a model shrine.

One rural sanctuary of this period, Kato Syme, has yielded a strange object which has been interpreted as a possible form of a model horns of consecration. It consists of a bronze cut-out terminal which may have once crowned a wooden sceptre (Lembessi (1984) 99, Fig.131). The shape is like a trident, but it has

also been described as a horns of consecration with a tall central projection, comparable to the postpalatial full-size clay example from the cave at Patsos. The date is not certain, but if the interpretation is correct its parallels suggest a late date. From the same site is also a fragment of a solid base from some unknown object which has a rectangular section, attached to it is a miniature horns of consecration (Lembessi (1976a) 415), the style of the whole being postpalatial; it is now known what the whole was, possibly another architectural model.

Conclusions

Twenty examples of this use of horns of consecration in model and representational form have been discussed, dating from the protopalatial to postpalatial periods, excepting neopalatial II, and from all types of sanctuary.

Certain differences in the use and possible role are immediately noticeable. A primary division is between those attached to other objects, those which were separate models, though some of these may have originally been part of another object, and those which are two-dimensional representations. Of the first class it is possible to recognise further divisions: those which are attached to vessels or other equipment,

and those on figurines.

Those which are attached to other models, in all cases either shrine buidlings or altars, are in a sense factually reflecting the same role as the full-size versions which adorned these features. In this way the symbol is a miniature version of the real object, though it may also have had an added value of reinforcing the religious nature of the object to which it is applied, sometimes used as offering stands, and the whole assemblage of which it is a part.

These models are found from the protopalatial period up to the postpalatial and perhaps it is possible to note a distinction between the use during this time: the earlier ones seem to have been purely models, whereas the later examples are attached to objects which also had a practical function of supporting vessels, as well as being attributes on figurines.

The model horns from Petsophas, extraordinary in many ways, have a basically architectural form, as Davaras has noted ((1976) 89). However the model horns and architectural features depicted are decorations not of an otherwise practical architectural unit, such as a shrine or altar, but of the actual horns of consecration themselves. Their symbolic

value seems therefore to have been additionally emphasised, as well as by duplication of the larger horns.

In the postpalatial period only model horns were attached to figurines, all were of the type of the goddess with up-raised hands, which was a development also of this period, and all were from settlement site shrines. This phenomenon has therefore to be seen in the context of the fact that this is also the period in which anthropomorphic figurines were most widespread. However it does seem also to reflect a special new role for this symbol when it becomes an attribute of the goddess. This is suggested by the position in which the horns are placed where birds, poppies and the strange palette shaped objects appear on other cult figurines.

The horns of consecration therefore in this period, in shrines in settlements at least, seem to take on an important symbolic value, as an attribute of the goddess worshipped, or a strongly expressive sign of her sanctity.

It is possible that the model horns were themselves votive offerings. At Mallia (l) and Phaistos (c), both neopalatial I, the horns were found as part of larger assemblages which included objects

which can reasonably be interpreted as votive offerings, such as model boats and figurines, and nine unused double axes, respectively. Thus the possibility exists that these miniature versions were themselves votive offerings.

The examples found in the peak sanctuaries of Traostalos and Vrysinas, and Juktas, probably neopalatial, are reported as being separate objects, though full details are not available. These too may have been votive objects, and all three sites did produce large deposits of a variety of votive offerings. However they may originally have been attached to other objects, such as model shrines, or vessels.

In the two shrines at Palaikastro where miniature horns of consecration were found in the neopalatial period, the number of associated objects is relatively smaller and these seem to be primarily equipment rather than votive: double axe stands and rhyton in one case, and a cupuled offering table in the other. Perhaps then in both these shrines the model horns were a substitute for the practical, full-size version, used in its role as consecrating the area or specific objects.

It is interesting to note that in the latter

shrine at Palaikastro another object found was a natural concretion; a situation with close parallels in a later period, when full-size horns of consecration are found together with natural concretions in the Fetish Shrine in the Little Palace at Knossos (n). Perhaps the horns in both these shrines at Palaikastro therefore, though model, did have a practical function, of demonstrating the sacred character of the room, in one case very simply furnished, and standing in relation to a possible cult object.

The example from Kato Syme is very unusual and it is not even certain that it is in fact a horns of consecration. Its use, if the identification is accepted, as a sceptre head, is unparalleled. Its significance is perhaps as a powerful symbol denoting the, presumably religious, high authority and status of the person who held it. This would imply that the horns of consecration could also be used as a recognised symbol conveying an authority to its bearer and carrying known meanings and associations.

The two examples of horns of consecration found in representational form in shrines in the sample are in themselves very different. Both are from the neopalatial period, but one is from a settlement in a fresco, and the other a bronze plaque from a cave.

The fresco is in the lustral basin, LXVIII, at Zakros (b), and is very badly preserved so that it is impossible to know whether the original complete composition would have involved figures, though there are no traces. All that remains are indications of horns, apparently on altars, so that in one sense the horns are being depicted in their known architectural function and in a representation of the actual use of the object. However the two-dimensional form may also have been performing the ritual function of consecrating the area and emphasizing its sacral character, and must have had some relation to the nature of the use of the room in which it was situated. This particular basin (Platon (1971) 180-83) was located in what were the royal quarters and the excavator thought that it had a dual function, both religious and secular (Platon *op.cit.* 183 and (1967) 240-41).

The bronze plaque from Psychro may have been a votive offering itself, but the scene depicted on it is of great cult significance, illustrating as it does the actual use of the object, and suggesting also something of their symbolic importance as discussed.

Although there are clear separations of function between the two types of horns of consecration; one

full-size and practical, the other miniature and model, this is partly implict in the scale involved, and partly from their different associations, it is useful to look at the overall distribution of both forms of this physically very distinct object.

On the whole the two forms cover the same pattern of distribution by site and through time, although the model objects occur more frequently in the sampled sites than the full-scale version. At only one shrine, Piazalle dei Sacelli at Haghia Triadha (c) did examples of both forms occur in the same period together.

A general overlap of function is perhaps possible in their symbolic role; the horns of consecration can be seen to denote the sanctity of an area and specific objects whatever their size or medium, and this was a function which spread over all types of site and in most periods.

Cult object - anthropomorphic

Prepalatial	settlement:	Myrtos
Protopalatial	rural:	Archanes-Anemospilia?
Neopalatial I	settlement:	Knossos (b)
		[Mallia (h)]
Neopalatial II	-	
Postpalatial	settlement:	Gazi
		Gournia
		Kannia
		Karphi (a)
		Karphi (d)
		Karphi (e)
		Knossos (m)
		Knossos (p)
	peak:	Juktas

Cult object - anthropomorphic

All religions have at their centre the divine being or beings towards which worship is directed; most also have a visible expression of that divine being, either through two-dimensional artistic representations; or in physically solid, three-dimensional form, thought actually to embody the divine spirit, in other words a cult object. This category is perhaps the most important of all in the study of any religion as it is at the heart of any attempt at understanding the nature of that religion.

In Minoan religion the cult object could take either anthropomorphic or aniconic shape.

Anthropomorphic cult figurines form a controversial and much debated category of object, and it is hard to define precise grounds for their recognition, and thereby to identify a figurine as a cult object, which was perceived as the embodiment of a deity by the worshippers. One of the insurmountable difficulties is that the perception of the beholder affects very much the status of the figurine, and contemporary attitudes and modes of thinking are not available to us.

Broadly speaking man-made anthropomorphic figurines are representations of divine beings in human shape, often with emblems or attributes from which may be inferred something of the character and powers of the deity. This physical embodiment in a cult object could however itself perhaps have various levels of assumed divinity, and the precise manner in which the object was considered to have contained or represented that spirit could be perceived in different ways. For instance, some figurines could be representations of a deity only in a straightforwardly symbolic way and not thought to contain any of its spirit (Marinatos, N. and Hagg (1981) 190). Or the divinity may have been considered as not constantly present but the figurine might be thought of as capable of being invested with the spirit on special occasions when invoked through ritual actions - the epiphany. Epiphany also might take the form of ecstatic visions, or personification in humans, not models; and several scholars believe that this, and not plastic cult images, were at the heart of Minoan religion (Matz (1958); Furumark (1965) 90-92; Hagg (1982)).

It is possible also that a figurine was viewed as a material object within which a divine power resided permanently and was treated as a direct representative of the deity. Finally there is the possibility that a figurine represents a human with a special and

important connection with the cult; such as priestesses, votaries, or priest-kings. This human in turn may be impersonating the deity, that is through ritual action the person has become possessed by the spirit of the divinity and embodies that deity for the worshippers, and in effect would be divine. Here the distinctions become blurred or very slight, both as far as our ability to make such an identification in the present day is concerned, and it must also be a matter for debate as to how the Minoans themselves would have regarded such distinctions.

Some scholars deny the existence of anthropomorphic cult figurines before the postpalatial period (Marinatos, N. and Hagg (1981)), but there is evidence for a limited use before this time, though in certain cases this question of precise perceived status is pertinent. The line of Minoan goddess figurines can in fact be traced back to the latter part of the Early Minoan period, at Myrtos, with some evidence of other possible examples coming also from the proto- and neopalatial periods.

All the recognised examples of anthropomorphic cult figurines come from settlement sites, with two exceptions: one, less certain, from the rural sanctuary of Archanes-Anemospilia, and the other some fragments from the peak sanctuary on Juktas. The postpalatial

period, to which the Juktas fragments belong, is indeed the period of clearest and greatest use of cult images, when eight of a possible twenty settlement site shrines (five of which are modified) contained examples.

Overall the number of sites where this type of object has been found is not very large, and none have so far been recognised from any cave sanctuaries, or the majority of rural and peak sanctuaries, though the existence of aniconic or natural cult objects in such places must also be considered. It does seem however that the desire, or need, to embody the object of the worship and cult in concrete, visible, anthropomorphic form was not very great in Minoan religion, until perhaps the postpalatial period.

The question of recognition must be considered though the reasons why certain figurines are identified as divine are not easy to categorise. There are some practical considerations which may be helpful, such as size, care of manufacture and material, to distinguish a cult figurine from a votive one, but these are not totally reliable.

Context amongst an assemblage and position within a shrine are useful indicators of a special reverence, appropriate for the object of worship, but unfortunately such information is not always available.

Thus a cult figurine might be expected to be found on an altar (or fallen from it), or in a situation where its divine status was obvious: elevated and reserved, not carelessly mixed with masses of other figurines and objects, as is often the case with votive deposits at cave and peak sanctuaries for instance.

One accepted indication of divine presence, both for figurines and in other representations, is the appearance of a bird, usually identified as a dove, discussed in detail by Nilsson ((1950) 330-41). Its presence or absence is not however generally sufficient alone to determine the divine status or otherwise of a figurine, though it is an important factor.

Gestures also are of importance when considering the intended status of a figurine, in connection with votives also. There is one gesture which is strongly associated with divine figurines and has led to the identification of a specific type, the goddess with up-raised hands, because of the way the hands are held. It consists of both arms being held out at the sides, with the forearms bent upright from the elbows, parallel to the body. The hands are often large and emphasised, with the palms either presented to the viewer, or turned in to the head. This goddess also has other distinguishing features: a diadem with emblems and a bell-shaped skirt. This is a late stage

in the development of plastic representation of the Minoan deity(s) but it is the intention here to show that they are not unknown from earlier periods, though fewer and much less uniform.

As well as the bird, which may be a general indication of divine presence or a character attribute, the Minoan godess was shown also with other attributes. the snake was perhaps the most common and important of these, appearing both on figurines and other pieces of cult equipment. Other emblems include the poppy, horns of consecration and mysterious tongue-shaped objects. Such attributes can be aids in identifying figurines as divine and also are revealing about the nature of the character and powers of the figurine they are attached to.

The above gives some guidelines by which the status of a figurine, divine or otherwise, may be judged, but in the end there are few, if any, absolute rules. Representational sources are also very useful since actual scenes of worship are depicted, including pre-eminent, obviously divine figures in human form, receiving adoration. Details of dress, attributes and gestures can then be compared with those of statuettes and the distinguishing features isolated. Identification is surest when figurines are found *in situ* and a clearer impression of their relative

position within an assemblage and a shrine is preserved.

Prepalatial

A single example of an anthropomorphic cult figurine has come from the sites used in the sample for this period. This is the figurine from Myrtos, which came from room 92, the actual shrine room and therefore level 1. The female figurine was found just to the south of a stone bench-type structure, from which it must have fallen, and which is interpreted as a bench-altar (Warren (1972) 86, 209-10 and (1973) 140). This figurine has a swelling, bell-shaped body, which is hollow, a tall thin neck with little differentiation in shape for the head, the features of which are indicated with plastic additions and paint. The arms are thin and were separately added, as was the jug which is held in the crook of the left arm, while the right reaches across the body to hold the handle of the miniature vessel. This is a miniature form of a Myrtos ware jug and has a hole through it into the body of the figure. The breasts of the goddess are formed of applied lumps of clay and it is not certain whether they were intended to be seen as exposed between the painted panels which represent clothing. One of these panels, triangular in shape covers the pubic area.

The figurine cannot have been used for any practical purpose despite being hollow, and its elevated, solitary position in a special place makes its identification as a cult figurine very probable. The treatment of the figure, though recognisably human, is not naturalistic, especially in its proportions and the shape of the head and neck. This seems to have been intentional since rough, though more correctly proportioned figures have been found here and elsewhere from the same period, for instance some of the votive figurines from Petsophas seem to be prepalatial.

The jug and the hollow body suggest a connection with liquids, possibly the water supply for the settlement which must have been an important concern of its inhabitants as Warren has pointed out (*op.cit.* (1972) 87). This in turn may have had some relation to the fertility of the earth and ensuring the success of agriculture. Warren further postulates that since the goddess is a household goddess (though Gesell (1985) 7, does not agree with this attribution on the grounds that the shrine was a separate sanctuary and therefore public; but such a rigid distinction in this early, socially unstratified settlement seems to be rather arbitrary), her sphere of influence must have extended also over the household crafts and industries of the settlement.

The arrangement of a goddess figurine on a bench-type altar against a wall is stongly reminiscent of later shrines, and thus the Myrtos goddess provides the earliest case in a long progression of evidence for such cult practices.

In the same shrine room were eighteen vessels of different shapes and sizes, many large, which were mostly in the southern half of the room, though some were near the altar on the east wall. It is possible that these were used to contain offerings for the goddess.

Several other figurines have been credibly interpreted as cult figurines in the prepalatial period. These are all from tomb or burial contexts and so not included in the sample, but are worth mentioning as they strengthen the argument that anthropomorphic cult images were known before postpalatial times, and demonstrate the same urge, seen in the Myrtos figurine, to portray a divinity in human, or at least quasi-human, shape.

Most similar to the Myrtos example is one from the cemetery at Koumasa (Xanthoudides (1924) 39; Warren (1973) 142) which also has a miniature vessel held in the crook of the left arm. In addition this figurine has what appears to be a snake wrapped around its body, providing another instance of an element central to

Minoan religion appearing at this early stage.

Another figurine came from a burial at Mallia (Demargne (1945) 14) which also was of a bell-shape with a schematic head, clothing indicated by painted hatching, and though there was no jug the breasts were formed into small spouts pierced through in to the body so that again the whole was in effect a vessel.

Other comparable anthropomorphic vessels came from burials in caves at Pyrgos and Trapeza, and a tomb at Mochlos; all have been credibly recognised as representing goddesses (Warren (1973) esp.138-41) so that the tradition of Minoan anthropomorphic cult images has its origin firmly at this early period.

Protopalatial

In this period the evidence for the use of anthropomorphic cult figurines is certainly less abundant and unequivocal, but can be shown to exist.

The rural sanctuary at Archanes-Anemospilia contained a pair of life-size human feet made of terracotta (Sakellarakis (1979) 368-69, pl.180 and (1981) 213,218). These were found in the southern section of the central room of the shrine and had probably stood originally on the raised platform which ran across the back of the room and has been

interpreted as an altar. From the ankle up the rendering of the feet is not naturalistic in that the sides are flattened and the top is rhomboid in section; otherwise the feet are naturalistic in appearance.

In the same room, below the platform and in different concentrations, was a very great number of pottery vessels of various shapes and sizes. These circumstances of location on a raised platform, with fine vessels laid out in front and the strange shape of the upper part of the feet, as well as the fact that they were life-size, led the excavators to interpret them as the feet of *xoanon*, of which the body would have been wood, destroyed in the ruin of the building. This interpretation is plausible but not yet conclusively proved or accepted (Marinatos, N. and Hagg (1981) 192).

Other terracotta feet have been found elsewhere in Crete, often singly and usually less than life-size and these may have been either votives or amulets, some have holes for suspension (Banti (1936) 196, n.4; Branigan (1970); Pini (1972); Marinatos, N. and Hagg *op.cit.* 190-92), so that the feet from Archanes are still remarkable for their size, shape and location.

The Archanes feet are the only concrete evidence so far known of a possible anthropomorphic cult image

in a protopalatial shrine. However there is an instance of a goddess(s) being realised visually, though in this case two-dimensionally, in a shrine context in this period from Phaistos (b). In rooms LIII and LIV of the shrine complex and its vicinity were found two pottery vessels, one a fruitstand and the other a bowl on which were painted cult scenes with central figures probably representing a female divinity or divinities (Levi (1976) 90, pl.LXV-LXVI, Fig.160a and 96, pl.LXVIIa, Fig.160b-c).

The fruitstand has a scene depicting the so-called 'goddess of the lilies' as on the upper dish is painted a female whose outstretched hands hold large white flowers with red stamens. She is flanked by two other female figures in attitudes of dance, and on the upper rim and the upper surface of the vase are shown other female figures, schematically drawn, with submissive gestures and dressed in strange loose garments, possibly animal hides.

The bowl has in the centre again a rather schematically drawn female figure and running down both sides of her triangular dress are series of loops, which, it has been suggested, represent snakes. She too is flanked by two female adorants, possibly also dancing and dressed in a similar fashion to those on the fruitstand. The style of rendering and details of

dress and physical traits are very similar on both pieces, and the scenes both seem to represent the epiphany of a goddess, either in different aspects, or possibly separate divinities.

Neopalatial I

The well-known faience figurines from the Temple Repositories at Knossos (b), belonging to this period, have aroused a great deal of discussion as to their precise status and meaning. Three figurines, of which one is only half complete, and fragments showing that more existed, were found divided between the two cists (Evans (1902-03) 74-87 and (1921) 500-10). They are in themselves so far unique in their appearance, naturalistic treatment and material, and are also part of a very interesting assemblage which is a stored, sealed deposit, level 3, and seems to consist of the contents of a shrine. Unfortunately the figurines are therefore deprived of all architectural associations, and so they have lost their original context and any indications arising from this about their status which would have been supplied by a knowledge of their positioning in the shrine.

The largest of the surviving figures is c.0.34m high and wears a very tall hat with a snake winding round, ending with its head projecting from the top of

the head-dress. The figure holds her arms forwards and downwards, and another snake is twined around them, while a third is also wrapped around her body. A second figure is slimmer and smaller with variations in detail of dress, though the overall impression of a flared skirt and tight bodice with breasts exposed is similar. The arms of this figure are held out to the sides with the forearms raised, in other words the same gesture of up-raised hands of the later clay goddess figurines. In each hand is a small snake. She has a low head-dress or tiara, decorated with medallions, also to be found on later figurines, and this has a socket on the front upper surface into which Evans restored a small model of a seated spotted feline from the same Repository.

The third most complete figurine preserved only the bottom half but this resembled very closely that of the first figurine, with the exception that there is no sign of encircling snakes.

The tallest figurine has been considered as a cult image of the snake goddess (Evans *(oc.cit.* ; Nilsson (1950) 310-11; Schachermeyr (1964) 144) and the others as votaries, though others believe that they are all goddesses (Rutkowski (1973) 293; Gesell (1985) 87) and this s̆ems more plausible, given the gesture of the second. Other interpretations however see these

figurines as representing human priestesses in some way impersonating, or in the act of being possessed by, the spirit of the divinity, and that they are votive objects rather than images which were set up for worship (Schweitzer (1928) 178; Matz (1958) 32-35; Kiechle (1970) 260-63; Marinatos, N. and Hagg (1981) 186,195).

This question is very difficult and as already mentioned the lack of context makes it more so, though the association of the figurines with other objects is known.

The skill, craftsmanship and resources which went into their creation and the fact that they are so far without any real parallel mark them out as very special objects, but this is not sufficient to prove their status as cult images, nor the extravagant costumes they are shown as wearing, since this may well have been the current court dress. One indication that these figurines were divine and intended as representations of a goddess or goddesses is the presence of attached attributes: the snake which is found on both the more complete figurines, and the feline on one only. There are no birds, which are often interpreted as a sign of epiphany, but this in itself is not an unvarying attachment to cult idols. Spectacular headdresses, tiaras or diadems, with attached symbols or

attributes are however a marked feature of later accepted goddess figurines, and are present here.

The gestures they display, especially that of the up-raised hands, can also be closely compared with that of figures accepted as divine, and they are certainly not thought of as usually associated with votive figures in stances of worship or adoration. It can be accepted then that the figures have several indications showing that a personage with divine status was intended to be represented, even if this was through a human agent. If indeed the figures are essentially human then the status of that person seems also worth some consideration.

Presumably they would have been priestesses and were here depicted in the costumes and with the gestures and symbols involved in the ceremonies which had the aim of divine possession. They would therefore have been themselves invested with very high status in the cult, as being on occasion the physical embodiment of the divinity and in very close association with the divine world. As such they would have been the representative of the goddess on earth, and at Knossos, as has been demonstrated, sat on the throne in the Throne Room of the palace (Reusch (1956)). It is possible that this special, quasi-divine status may have been made as apparent and

understood in these plastic figurines as it was in reality. In which case the distinction is indeed very fine and the intention surely that of producing an image in human shape of the divinity, or in this case a person in which the divinity is physically perceived by the worshippers, i.e. a human equivalent.

It has been considered also that these figurines were votive objects (Schweizer *(oc.cit.*, Marinatos, N. and Hagg (1981) 195) even if they represented priestesses personifying a goddess. However they are certainly not of the usual votive class of figurine, usually much cruder and found in very large numbers in bronze and terracotta at many peak and some cave and rural sanctuaries. Votive figurines are rarer in settlement site shrines and again none compare with these, though the contents of the two repositories are admittedly fairly remarkable altogether. These included votive robes, many pieces from inlays and other decorative pieces in the shape of flowers, fruit and marine life, animal plaques, natural shells, and sealings, as well as many fine vessels in pottery and faience, four stone liabtion tables, two stone hammers and a marble cross - the contents apparently of a very rich shrine.

Several of these items, especially the robes, are votive, but by no means all; many had a decorative

function and others were practical pieces of equipment, including offering vessels, so that it does not follow from their context that the figurines could only be votive. Rather they may well have had a very important and prominent position in the shrine, receiving the offerings of various kinds, including the robes. Further, the manner in which they, together with the whole shrine contents were so carefully buried and sealed, with remains of sacrifices found above them, does indicate that they were considered as very important. Perhaps, as Gesell has suggested, they had been damaged in some catastrophe and were then ritually buried (Gesell (1985) 87; Marinatos, N. and Hagg (1981) 195).

The only other possible evidence from this period for an anthropomorphic cult image from shrines in the sample comes from the palace of Mallia (h). The evidence is however less convincing and consists of a pair of terracotta human feet, comparable in some ways with those from Archanes-Anemospilia mentioned above. They were found in room XVIII 1, a shrine room which had annexes, and they were situated near the doorway into one of these, XVIII 3 (Chapothier and Demargne (1962) 11,54, n.1 Fig.3, pl.XXXIX; Pelon (1980a) 218, (1980b) 661; van Effenterre (1980) 446). They are smaller than lifesize (0.12m long and 0.09m high) and were fairly roughly shaped with turned-up toes. The

room also contained an altar with incurved sides, flanked by incense burners and other pottery, all in different parts of the room to the feet.

The excavators, considering all the circumstances, thought that they were votive feet, perhaps left by a worshipper to commemorate his visit or prolong his presence at the shrine (Davaras (1980) 88 - regarding a foot plaque from Traostalos). It has also been suggested that such feet rather than intended to be part of and support a wooden cult statue, had instead the function of evoking the presence of the invisible deity (Pelon (1980b) *loc.cit.* ; Marinatos, N. and Hagg *op.cit.* 192). However given their size, manufacture and position relative to the other important objects in the room it does seem unlikely that they were regarded as being directly connected with a cult object; though it is slightly strange that they seem to have been the only votive objects in the room and such evocative ones.

<u>Postpalatial</u>

In this period the use of cult figurines increases noticeably and their recognition is on the whole much less ambiguous. Indeed it has often been suggested that the use of anthropomorphic figurines was a late

development in Crete, not occurring before this period when the island was under the domination and influence of external populations from the mainland (Banti•(1941) 27; Alexiou (1958), esp.237-43; Marinatos and Hagg *loc.cit.*). The anthropomorphic cult images of this period are certainly more readily identifiable and form a more consistent group than in any of the preceding periods, they are also on the whole larger. A special type of goddess figurine is recognised which has been called 'the goddess with up-raised hands' because of the gesture the majority display. The other common characteristic is the rather stylised, bell-shaped, bottom half of the figurine, which has been considered as rendering the figurines only semi-anthropomorphic (Evans (1902-02) 98), though it seems more likely, especially as two from Karphi have feet, that is is merely a schematic version of the bell skirt (Banti (1941) 19; Alexiou (1958) 203, n.67).

Of the sample used here eight settlement site shrines contained figurines of goddesses, and also one peak sanctuary: Juktas. Although they conform in general to the type outlined above there are many differences in detail of size, style and treatment.

In the shrine at Gazi five goddesses with up-raised hands were found in the single room (Marinatos (1937) 280-83,286-89; Banti (1941) 20-21; Alexiou

(1958) 188-92). The largest was 0.775m high and has three poppy-heads in her diadem. The others (measuring between 0.52 and 0.595m) are similar in general appearance but have different attributes. One has a diadem with a horns of consecration in the centre with two birds at the sides; another has a single bird perched on top of her head-dress; a fourth has a diadem again with a bird, placed this time between two tongue - or palette-shaped objects, and behind two more of these which end in little horns. The head of the fifth is missing. While all display the same basic gesture of arms out to the sides with forearms and hands raised, there is some variation in the exact angle of the hands: whether the palms were face out or turned towards the head.

In the same shrine were found a number of vessels, including two tubular vases, a rectangular offering table and bowls, and it has been suggested (Gessell (1985) 44) on the basis of similarities in clay and painting that each goddess figurine had a particular associated offering vessel. The goddess figurines at Gazi have each different details or attributes: the poppy, the bird, horns of consecration and the palette-shaped objects, some horned; though it is not certain whether these are intended to indicate completely separate goddesses or different aspects of the same divinity. The snake is not present. The poppies on

the head-dress of the tallest figurine are unique in this form but are seen on the gold ring from the acropolis at Mycenae (Nilsson (1950) 347, Fig.158). These clay heads are slit, as for the extraction of juice for opium, and this suggests that the drug may have been used in ceremonies surrounding the goddess, possibly in connection with its therapeutic properties rather than its narcotic qualities (Marinatos (1937) 288; Gesell (1985) 44, with refs.).

At Gournia an independent sanctuary contained one complete goddess figurine with up-raised arms, and fragments: two heads, three arms and two hands, to show that several others originally existed in the shrine (Hawes *et.al.* (1908) 47-48, pl.XI; Banti (1941) 20; Alexiou (1958) 185-87; Russell (1979) 29-30). The best preserved figure is 0.37m high with a rough indication of a diadem or head-dress in the form of a band of clay, but it is rather plain and has no attachments. A snake is attached to the body and arms and one of the separate heads has a snake on its shoulder and had a similar head-dress to the above; the other has a wavy band on its forehead which may also have been part of a snake. The snake is therefore the dominant attribute of the goddess figurines in this shrine, though four small birds were also found which may originally have been attached to figurines.

The objects in the shrine were grouped together in the northeast corner around a tripod table and included five tubular vesels with serpentine handles and attached horns of consecration and other attributes: snakes in one case and a disc in another.

At Kannia several rooms contained goddess figurines; not all of these rooms may have been level 1 shrine rooms. The best preserved of all the figurines came from room 1 from where four goddesses with up-raised hands were recovered near a row of low flagstones, serving probably as a bench-altar (Levi (1959) 245-46; Alexiou (1958) 197). One of the goddesses (0.34m high) is holding her arms up and slightly forward rather than straight out to the sides as is usual, but the gesture is basically the same. Two snakes twine round her arms and a nest of the creatures crowns her head, projecting through the toothed tiara she wears. Other attributes may also have been attached to this figurine as there is a row of holes around the top of the tiara. On her neck, below the ear, a bird is also attached.

A second, larger, goddess figurine (0.52m high) from this room has a similar toothed head-dress with projecting snakes with traces of a broken off object in the centre. No other attachments are preserved, though one arm is missing (Levi *op.cit.* 245; Alexiou

(1958) 196-97). Another figurine has both arms and head missing but seems similar overall. Larger than any of these must have been the figure of which only the top half of the head survives (Levi *loc.cit.* ; Alexiou *loc.cit.*). It also has a toothed diadem with traces of snakes, and from the top of her head is the beginning of a cylindrical projection, broken off, around which are small holes. On the forehead and above each ear are three flame - or leaf-shaped reliefs.

In the same room was a relief plaque, in fragments, which probably represents a goddess also (Levi *loc.cit.* ; Alexiou (1958) 198). On one piece is shown the torso of a female with arms held in a gesture comparable to that of the figurines. A ruffled flaring skirt is shown on the other fragment.

Room I also contained other, much rougher and fragmentary figurines which were votive and included a male. Also present were tubular vessels, a clay ox head, beads and some pottery vessels.

Fragments of more goddess figurines came from room III, which was very narrow and may have been a store room. These included the upper part of a head which had a toothed tiara and a thin cylindrical projection rising from the centre, on each side of which were

tongue-shaped objects standing erect, which resembled the relief decoration on the forehead of the head fragment from room 1 above. More pieces from crowns and the strange projections were found in the room, together with a model horns of consecration and a small bird, which both may originally have been attached to figurines (Levi *op.cit.* 246; Alexiou *op.cit.* 197).

Room V, which may have been another shrine room as it was furnished with benches and a hearth, contained a complete goddess figurine as well as many fragments of others. The complete one was found near the west wall and not far from the north bench, from which it may have fallen. It is of the up-raised hands type with the palms facing outwards. It is smaller than the other mostly complete examples being 0.22m high and has the toothed tiara common at this particular shrine, the centre of the head however appears to have been left open. Another unusual feature of this figurine is the vertical handle on the back at about waist height (Levi *op.cit.* 246-47; Alexiou *op.cit.* 197). This handle, together with the hole at the top of the head suggest it was a vessel in the shape of the goddess, which, if so, has very strong antecedents in the earliest, prepalatial, anthropomorphic cult images which also were in vessel form. In the same room was a vessel in the shape of a human head, the features of which are very similar to those of the goddess figurines, though

it is very badly preserved (Levi *op.cit.* 247).

Groups of fragments from goddess figurines were found also along the west wall and in the centre of this room. Still standing on the south bench was the bell-shaped skirt of another, to which possibly belonged a head with a conical tiara with horizontal grooves and four vertical ribs, rising above the usual toothed tiara with a nest of snakes. On the forehead and temples were projections of the same leaf or flame shape as noted on other figurines (Levi *loc.cit.* ; Alexiou *op.cit.* 197-98).

In the same room was a quite large male figure (0.385m high) wearing a sort of cuirass, and a rough female figure, both votive. The furnishings of this shrine room also included tubular vessels, relief plaques, a clay animal figure, a triton shell and a libation table.

Similar equipment, including also a tubular vessel and a libation table, with incised horns of consecration, accompanied another goddess with up-raised hands in room XV, also probably a shrine room. She resembles others in this shrine complex in having a toothed tiara with snakes appearing between the teeth and a conical, ribbed head-dress (Levi *op.cit.* 249; Alexiou *op.cit.* 197).

Three separate shrines at the settlement of Karphi contained anthropomorphic cult images of the goddess with up-raised hands type, or fragments of.

Five were found in what appears to have been the main public sanctuary, room 1 (a) (Pendlebury *et al.* (1937-38) 75-76; Alexiou (1958) 192-95); Seiradaki (1960) 29). These were larger on the whole than those so far discussed, ranging from 0.55m to 0.85m high. Although it is not made completely clear in the published reports most of these goddesses originally stood on the bench-altar of the shrine (Rutkowski (1986) 167, n.45); one is known to have been found in an annexe room of the shrine.

The two tallest of the goddesses are quite similar and both share the unusual feature not met with in other figurines of this class of having holes cut out in the bottom of their skirts to allow the feet to project through. The arms of both are held up and slightly forward; both also have tiaras consisting of a row of medallions across the front, but with differences in the added attributes. One has above the tiara two birds alternating with three upright discs, similar to some found on figurines from Kannia, while the other has just three birds.

Another of the figurines from this shrine has a

hole, single this time, cut out in the bottom of the skirt, both front and back, with the feet projecting at the front. The arms are held slightly forwards of the body with the wrists and hands bent, palms facing. the head-dress is conical with a crown surmounted by a pair of horns of consecration.

The fourth figure has no attributes, but a hole in the top of her head suggests that one was originally present. The final figure also had no head-dress and the top of the head was left open, possibly also for the attachment of some object. All these figurines from room 1 have added facial details and finely modelled hair styles.

Fragments of goddess figurines belong also to a deposit found in the area of the Temple Road East at Karphi (d) (Pendlebury *et al.* (1937-38) 86), for which no details are available. Other fragments came from rooms 16-17 of the Great House (e), again an open court like (a) and which also contained a bench. No details are available about what these pieces consisted of.

In the same court were found fragments of a triton shell, a small, rough clay figurine, fragments of a tubular vessel and various small objects.

At Knossos (m), the Shrine of the Double Axes, was discovered the best evidence of the goddess with up-raised hands *in situ* with very well preserved

association of architecture and relations to other equipment and objects.

The shrine contained five figurines altogether, all were situated on the bench-altar which ran across the back wall of the room, and four of which appear to be votaries of the main goddess figurine. Of these attendants one was a crude female figurine, half bent, with incisions filled with white chalk, which Banti compared with contemporary figures from Haghia Triadha (Banti (1941) 20). There is also a male figure who is shown with both hands stretched forward, holding a bird, perhaps representing a real offering. The two female votaries are smaller and more rudimentary than the goddess; they have their arms bent round to their breasts and one has her head turned round to one side, perhaps she would have originally have been positioned to look at the goddess. Both these attendants have painted decoration, as does the male, with small head-dresses indicated. Their status as votaries rests on their comparative size, details of dress, and, mostly, gesture (Banti (1941) 23-24), though Evans originally stated ((1901-02) 98) that the bell-shaped skirt demonstrated that they were goddesses, but later he believed only the tallest to be a goddess and called the others 'handmaidens' (Evans (1928) 336-42).

The goddess (0.22m high) while stylistically

similar has many distinguishing features. She has the gesture of the hands up-raised and these are very large and crossed by a streak of dark paint. One difference in the gesture displayed by this figurine from others of the same type is that one palm is face out, while the other faces her head; in all other cases both palms face the same way. The details of her dress are painted and are more elaborate than those of the votaries. On her head is a bird, possibly a dove (Evans (1901-02) 96-100, (1928) 336-42, Fig.193; Banti (1941) 19-20, 23-24; Alexiou (1958) 202-04).

Apart from these figurines also standing on the bench-altar were two pairs of horns of consecration with sockets for the insertion of other objects, and a steatite double axe. The goddess with up-raised hands is therefore here closely associated with both the horns of consecration and the double axe.

Another shrine at Knossos, that in the Spring Chamber of the Caravanserai (p), also postpalatial but slightly later than the above (LMIIIC-Subminoan), contained a goddess figurine which while of the general type of up-raised hands has distinct differences; primarily that she is enclosed within a model house or hut urn.

This takes the form of a terracotta model of a

round, rudimentary building, with a steep conical roof. It has two handles where the walls meet the roof, and two loops by the doorway for fastening the door across, now missing. The goddess herself is inside in the middle, shown from the waist up only and apparently nude. She has the characteristic up-raised hands gesture and a rough tiara but no special attributes otherwise. Dark glaze was used to pick out details and to accentuate the hands with spots (Evans (1928) 128-30, Fig.63; Banti (1941) 23; Alexiou (1958) 205-06). The hut has painted decoration of a spiral ornament on the roof and a stylised octopus motif in panels on the walls.

Hut urns seem to have appeared in the postpalatial period on Crete (Evans (1928) 130-34; Gesell (1985) 52-53), and do not always seem to have a religious function, many are very simple. Another similar hut urn which like the Knossos one has clear cult connections is one from Archanes (Alexiou (1950) 441-62 and (1958) 277-81), this also encloses a goddess figurine, seated this time, while on the roof are two males, peering through a hole, and a reclining feline. It has been suggested, given the round shape and construction of the building which encloses the goddesses, which does not correspond to any known settlement site shrines, that she is here intended to be shown in a rudimentary rural sanctuary (Alexiou

(1958) 205).

The postpalatial shrine in the Spring Chamber occupies what was originally an LMI fountain house which was probably not cultic. The other objects associated with its later cult use, found mostly in the basin, were pottery, including bowls, some with their carbonised contents, and incense burners, and stone lamps. The hut urn with the goddess came from the upper levels of the basin.

A remarkable piece of evidence has been excavated recently at Juktas in the form of fragments of a figurine which the excavator has compared with those from Gazi (Karetsou (1975a) 339-40, pl.267a, (1975b) 178, Fig.177, (1976a) 418). This is the only instance of a goddess figurine of this type from a non-settlement context, and the only evidence for a cult image recognised at a peak sanctuary in any period. Although fragments of statuettes of larger size than the majority found at peak sanctuaries have been discovered at some sites, notably Juktas, Maza and Petsophas (Karetsou (1974a) 235, pl.175; Platon (1951) 158; Myres (1902-03) 375, pl.XII 34), there is no evidence that these were anything other than votive, and size is not a sure indicator of divinity.

One of the goddess fragments from Juktas was from

the face, showing an eye and part of a tiara (0,075m high) and there were also two smaller pieces from the upper part of the head. Karetsou also mentions that Evans reported finding what he described as the raised arms of a figure which may be relevant in this connection, though they came from an MMIII level (Evans (1921) 159).

The fragments, whether from a single figurine or more than one is not known, came from the fill covering rooms II-III or IV, and the figurine may have been placed inside one of these rooms. In the neopalatial period these rooms probably fulfilled a subsidiary role in worship at the shrine, but in the postpalatial period it is possible that the main cult activity moved indoors for the worship of the goddess with up-raised hands, and thus the differences between the nature of the cult here and that in settlement sites may have decreased. This interpretation of the cult at Juktas is speculative, though it is certain that religious activity continued at the site in LMIII and that a goddess figurine was present, probably in one of the rooms.

The above are the examples of goddess figurines found in postpalatial shrines used in the sample. There are others which have not been included, notably those from Prinias, which have no certain architectural

associations, and individual examples from Pankalokhori and Sakhtouria, which have no related architecture (see Gesell (1985) 47, 132 with references).

The goddess with up-raised hands is a very marked feature of shrines in this period. They share certain physical characteristics of gesture, a bell-shaped skirt, head-dresses usually with emblems, a small waist and small breasts often shown plastically. The exact details do vary as outlined above.

They all come from settlement sites except that from Juktas, which, as has been suggested, may belong to a cult which in this period transferred from the open air to an indoor setting. Many are from what appear to have been public sanctuaries. They are found with a range of ritual equipment which is mostly intended for the making of offerings, including tubular vessels and stone libation tables, but with very few signs of votives or actual offerings made to them. It is interesting to note that no cult image has been recognised amongst the large number of figurines at the Piazzale dei Sacelli, Haghia Triadha, where the votive deposit was very rich and varied.

In all the shrines except one more than one goddess figurine was present, the exception being the Shrine of the Double Axes, Knossos (m) where figurines of votaries accompanied the goddess. At three

shrines, Kannia, Karphi (e) and Knossos (m) figurines of the votive class were found in the same shrine as the goddess with up-raised hands. Those in the first two instances were rough and completley different in character, while those at Knossos showed less of a difference, and may have been in the manner of attendants on the goddess but not themselves divine.

The specific attached emblems or attributes which the majority of these figurines display must have some bearing on the nature of the divinity portrayed, though they are not always easy to interpret. The poppy heads are found on only one from Gazi, and have already been discussed. The bird is often taken to be a general sign of epiphany and may be no more specific than that, though it may also have associations with the sky and a celestial goddess. The horns of consecration also may be used to designate the wider cult status of the figurine, as other model and larger horns have been supposed to do for architecture and other objects, rather than diagnostic of a particular cult. The bird and horns are found together as attributes on one figure from Gazi. Even more enigmatic are the palette- and tongue-shaped objects, some with added horns.

The snake is another attribute, found either wrapped around parts of the figurine or in the head-

dress. On one figure from Kannia snakes are present on the same figure as a bird. The snake seems especially important at Kannia in fact, which is also the only site where it is placed in the actual headdress of the goddess (except of course the tallest figure from the Temple Repositories, Knossos (b), from the neopalatial period). It is also the predominant attribute at Gournia.

Whether or not these attributes represent different aspects of the same goddess or completely separate goddesses is very difficult to say. While there is nothing to preclude the possibility of more than one divinity being worshipped in the same shrine, apart from the poppy the attributes are rather general or unspecific; the earth and sky may have been represented by the snake and bird respectively, but these associations are not entirely certain nor are these symbols devoid of other possible meanings. The overlapping of the symbols, both in the same shrine and occasionally on the same figurine, and of associations of architecture and equipment, suggests that any divisions were not all that clear, and so perhaps the theory of different aspects is the closer to the truth.

The gesture of the up-raised hands is one of the features shared by all the figurines which are preserved to a good extent, even the goddess in the hut

urn which in many other respects is very different to the others. This gesture, with some slight variations in the exact positioning of the hands and arms, must be important and has been taken as a sign denoting their divine character. It is perhaps best interpreted as a gesture of welcome and benediction (Banti (1941) 29; Alexiou (1958) 243-52). It has however in the past also been seen as signifying the horns of consecration (Williams in Hawes *et al.* (1908) 48) or as a part of a dance of invocation (Matz (1958) 34-35).

Conclusions

From the evidence collected here two main conclusions are readily available: firstly that the use of anthropomorphic cult images occurred mostly in settlement site shrines, with only one possibly from a rural sanctuary and another from a peak. Secondly that the majority certainly come from the postpalatial period. The question of whether or not anthropomorphic cult images existed in Minoan religion before the postpalatial period has been much debated. The main arguments have been that no special arrangements or buildings which could be called temples can be shown to exist to house them, that no such statues are represented in the rich and fertile iconographic sources, and of course that no examples of

such figurines have been found.

It is hoped that it has been shown here that some cult images in anthropomorphic form certainly did exist in shrine contexts before the postpalatial period. That no special arrangements existed to house them can be admitted, though the earliest example from Myrtos and the possible *xoanon* from Archanes-Anemospilia were placed in elevated, prominent and reserved positions, at the focus of attention, that is on different forms of altar. It is also true that in these periods and the neopalatial there is not a great deal of uniformity in shrine architecture, but this does not necessarily of itself preclude the existence of a cult image. Arguing back from later periods when impressive temples were built to house cult statues cannot be used to prove that such images could earlier only be found in comparable settings. Rather the great diversity to be seen in architecture and equipment used in Minoan cult would seem to discourage the expectation of finding any standard forms. The argument based on iconographic evidence also does not seem to provide conclusive proof against the existence of anthropomorphic cult images either (Marinatos and Hagg (1981) 186). The important factor here is surely the medium rather than any deliberate intention. The freedom of glyptic art allows representation of scenes and details which could not be achieved in plastic art or for which it is not

so well suited. Why would the imaginative and creative Minoan artists limit themselves to portraying a statue of a divinity when they could use the medium to depict that divinity in its human form?

The different levels of possible perceived divine status of a figurine have also been discussed and the implications arising from this. However it could be argued that even if a particular figurine representing a divinity or a person possessed by the spirit of a divinity were not considered as being permanently imbued with the divinity they are still such clear and obvious manifestations of the divine power, and usually positioned to demand attention, that at the very least they would have been a constant and unequivocal reminder to the worshippers at a shrine that they were in the presence of the supernatural spirit of the cult.

It can be accepted then that anthropomorphic cult images were not unknown in palatial Crete. It does seem however that they were not essential to the worship in a shrine, nor was the impulse to portray the divinity plastically very strong. Perhaps indeed the epiphany of the goddess, who was made to appear to the worshippers by means of dances and invocations leading to ecstatic visions was more important, but cult images are still part of the religion practiced.

While, as stated above, the majority of cult figurines have come from postpalatial contexts when they also achieved more uniformity of appearance, as did other aspects of the cult, and form a recognised type, the line of Minoan goddesses can be traced back to the much earlier prepalatial period. Other features of the later cult, such as benches, horns of consecration, the double axe and libation tables, can also have their antecedents found in this period (Warren (1973) 145-47).

The development and evolution of anthropomorphic cult figurines was not a constant struggle towards naturalism from the first rather stylized beginnings shown by the goddess of Myrtos. The most beautiful and naturalistic are those from the Temple Repositories at Knossos, while those from the postpalatial period are again more schematic with fairly well established conventions. The material used in all periods is predominantly terracotta, with the exception of the faience ones from the Temple Repositories, and the postulated wooden *xoanon* from Archanes-Anemospilia, which represents a slightly different type of cult image and one whose existence has not yet been conclusively proved.

The great majority of examples of this category, as already noted, occur in settlement site shrines, and

even at Archanes and Juktas it seems significant that the figurines would have been situated indoors. None have been recognised from the large open air sanctuaries with extensive votive deposits, such as the rural sanctuary of Kato Syme and the settlement site shrine at Haghia Triadha (c), the Piazzale dei Sacelli, or in the caves which also often had numerous offerings deposited. In most of the shrines where the goddesses have been found although there is evidence that offerings were made to the cult image in the form of vessels and equipment to facilitate and perhaps also store the material, none seem to have been the recipients of large quantities of deposited votive objects, those accompanying the Temple Repositories figurines being an exception. This is perhaps also a characteristic of settlement shrines as a whole. The representation of the divinity in anthropomorphic form did therefore exist in Crete in Minoan times, though the presence of a cult image does not seem to have been a requirement, nor a central element in worship and cult activity as such statues were elsewhere in many other places and periods.

5. SITE ANALYSIS

Having considered the evidence on the basis of individual categories of feature and object contained within the shrines in the sample it is now necessary to take an overall view of the situation as regards the four different site types. This is in order to assess the degree of homogeneity within each as well as between them.

Settlement sites

This is the site type with the greatest number of shrines: 57 in all periods. Of the 65 categories of feature and object looked at, all, except for the temenos wall, were found in one or more settlement site shrines over all periods. This one exception is perhaps accountable for by the fact that the physical demarcation of such shrines was achieved by the walls of the rooms which comprised each shrine.

The greatest number of categories contained in a single settlement shrine was 25 at Zakros (a) in the neopalatial I period. This includes the objects found in all the rooms of this complex, not just the shrine room itself.

Prepalatial Only two settlement site shrines are included in the sample for this period: Chamaizi and Myrtos. It is difficult to draw any firm conclusions from such a small sample, but certain points can be noted. It is interesting firstly that identifiable religious activity is taking place at this early period within recognisable and defined shrine units.

Of the two, Myrtos contained the most categories of feature and object: 14, of which only two were found also at Chamaizi (which in turn contained 5 categories), so the pictures provided by the contents of each do not accord very closely. There are differences too in the nature of the settlements the shrines belong to. Myrtos is a small village of different households while Chamaizi is more of a single farmhouse, perhaps for an extended family. The Myrtos shrine is also physically much better defined and had its own store room, probably serving the whole community. At Chamaizi the arrangements for cult are much simpler, indeed there are problems in recognising the exact delineation of the cult area.

Of the features and objects found at both shrines, all appear again in settlement site

shrines in later periods. Relatively few of the possible architectural features were present at the shrines, but included a bench-altar at Myrtos. The main component of the equipment was pottery of various kinds, and the only special form of possible offering equipment was the tripod table from Chamaizi. Tools of various materials were also found at the shrines, whether votive or practical is not certain, and 'metal tools' was the only category shared at the two shrines, apart from storage vessels.

Protopalatial In this period five settlement site shrines were included in the sample, of which two are modified deposits having therefore no architectural features. The two shrines at Phaistos from this period, (a) and (b), both contained 22 different categories of feature or object within all the rooms of the complexes. The range of categories found within settlement site shrines has therefore increased at this period. The number of architectural features is only slightly greater, with four different ones found, three of which are new to this period: the niche/compartment, sacrificial ditch and vat/channel.

One of the categories of equipment, the

'fruitstand' occurs in three of the sites and is in fact almost exclusive to settlement sites in this period, with a related example being found at Kannia in the postpalatial period (and also examples from Kato Syme and Psychro reported from the neopalatial I period). Pottery of various kinds is a substantial part of the equipment of all shrines. Certain other categories were also noticeably consistent in their inclusion in shrines: four of the five contained the category comprising marine derived elements, in these cases shells. Stone single-cupule libation tables were discovered in three of the five, as were lamps and seals or sealings. All three of the primary level 1 shrines were furnished with benches, though the evidence is insufficient to identify them as altars with certainty.

Eleven categories including the rhyton, tubular vessel, double axe and animal figurine occurred at one shrine only, not always the same one. Of the list of categories 25 were not found in any of the settlement site shrines in this period.

Neopalatial I The greatest number of shrines for a chronological period were included in the sample in the neopalatial: 27. Of these eight were

modified, having fallen from upper floors or were level 3 stored shrine contents; all were therefore deprived of their original architectural context. Of these 27 Zakros (a) contained by far the greatest variety of categories of feature and object, a possible 26, though the shrine comprised several rooms and also material of a religious nature which had fallen from an upper floor. No other shrine in this period contained more than fifteen categories.

The bench-ledge was again the most common architectural feature (5) and pottery of various kinds the most frequent type of equipment found. Fifteen categories occurred at only one shrine and only six were not found at any (some which are included, such as the bench-altar and aniconic cult object, however, rather tentatively). There is again an increase in the number of different architectural features in use, now nine. Of the possible range of equipment 23 categories were found at at least one shrine, and 26 of the votive and decorative class, excluding only metal human figurine, so that almost the full scope of categories was included in shrines in this period, including cult objects.

A total of 59 categories were discovered in settlement shrines in this period, which shows the very wide range of possible shrine contents and the degree of uniformity is not great since the most any single shrine contained was 25.

The fruitstand and clay rectangular hearth/offering table seem no longer to be used in this period, though examples of the former are found later. The stone libation table, tripod table and rhyton continue, especially the first which is found at seven shrines. Marine elements are again relatively common, found also at seven shrines. Neither of these are a very large proportion of the number of shrines in this period, but no other categories except pottery, taking all shapes together, and jewellery occur at more shrines; 15 of 27 being the greatest number. This demonstrates again the large potential range of the equipment and objects brought into cult use.

The double axe and horns of consecration, both full-size and model, occur at five and six shrines respectively, only two of which contained both (Palaikastro (b) and Phaistos (c)). This is the first period in which the full-size horns of consecration are found in a settlement site

shrine. Lamps, stone tools, miniature vessels and seals and sealings are the only other categories which were found in six sites beyond those already mentioned. All others appear at fewer than this so that in a compariosn of this kind no real consistency or uniformity is apparent; what is striking rather is the great possible diversity of objects which could be found in shrines in this period.

Neopalatial II In this period only three shrines are included, all are from the palace and area of Knossos, which continued in use after the previous period. Each contained almost the same, low, number of categories of features and objects: 7,7 and 6 respectively, though the number of shared categories is small. The bench or ledge alone is found at all three. Apart from this the vat/channel and double axe or stand were found at the same two shrines: Knossos (j) and (l); the only other category shared by more than one was the rhyton, at Knossos (j) and (k).

The architectural character of each is quite different: the Central Palace Sanctuary, (j), included pillar crypts; the Throne Room (k) is unique in itself, and had also a lustral basin attached; while the third, in The High Priest's

House (l) was a smaller, single-roomed shrine in a private house.

The small number of sites and low level of overlap between them mean that few conclusions can be drawn about the cult practices in settlement site shrines in this period.

Postpalatial Twenty settlement site shrines are in the sample for this period, of which three are modified and have therefore no associated architectural features; three others were very simple shrines and also have no reported architectural elements. The shrine site which contained the greatest number of different categories was Kannia with 24, though there were several rooms in this complex, at least three of which were level 1 shrines. The shrine with the next largest reported variety was the open-air deposit of the Piazzale dei Sacelli, Haghia Triadha (c), where 16 were found.

Seventeen of the listed categories were not found in any of the settlement shrines in the sample for this period, and 12 occurred at only a single site, not always the same one. Eight architectural features were used in shrines, a very slight decrease from the neopalatial I

period. Seventeen of the categories of material equipment were found, and 23 of the votive and decorative class (including tools). The variety and range of both classes is therefore smaller than the neopalatial I period, especially equipment, though there are of course also fewer sites in the comparison.

The pillar is not a feature of any of the postpalatial shrines, and categories of equipment which have gone out of use include the portable altar, chalice and libation jug; the variety of stone vessels is decreased, with comparatively very few stone libation tables. Weapons and inscriptions have not been reported from any of the shrines in the sample.

With this apparent comparative decrease in the range of categories found is it possible to detect a greater concentration or uniformity in those that do appear? Of the seventeen primary level 1 shrines eight contained bench-altars of more or less certain identification, at least six seem sure. This is a marked increase on former period, when examples were even less certain, and is a high proportion of sites, both compared with bench-altars in previous periods, and with most other categories of feature in all periods. In

the equipment class nine shrines contained tubular vessels, again a high proportion, especially for a vessel of such particular form, and a considerable increase on former periods, though it is not completely new. Of these nine, three were shrines with bench-altars (two were modified). Of the forms of vessel which seem to have been designed or adapted for making offerings the tubular vessel is by far the most frequently found.

There is a very marked increase in the number of shrines with anthropomorphic cult objects, eight of the 20; and two with aniconic cult objects; one, Gazi, contains both forms. Of the nine sites with cult objects of both kinds four also were furnished with bench-altars and five contained tubular vessels; only one shrine however, Kannia, had all three.

The most frequent votive categories were jewellery/decorative objects (8), animal figurines (7) and model birds (7), the last either attached, or probably originally so, to cult figurines. Human figurines of the votive class, both male and female, were found in nine shrines, four of which also had anthropomorphic cult figurines. Horns of consecration, of both full-size and model form,

some attached to figurines, also occurred in nine shrines in this period, also an increase on former periods.

It seems therefore that there is some greater degree of uniformity in settlement site shrines in this period with fewer categories of feature and object overall but some of them occurring in a greater proportion of shrines than previously. Over all periods the number of different features and objects brought into use in, or offered in, settlement site shrines is very large in the sample used here, certain ones were confined to particular periods, or were more frequent, but on the whole the possible variety was very great.

Rural sanctuaries

The number of shrines of this type is quite small, five separate shrine sites, though one, Kato Syme, was in use from the neopalatial I to the postpalatial peiod. In each period, except prepalatial and neopalatial II two rural sanctuaries in the sample were in use, thus limiting the possible comparisons. Of the 65 categories of feature and object a total of 46 were found in one or more of the sites over all periods. The greatest number at a single site was 28 at Archanes-Anemospilia in the protopalatial and Kato

Syme in the neopalatial I period.

Protopalatial This is the first period in which sanctuaries of this type appear in the sample. The two, Archanes-Anemospilia and Piskokephalo are in fact very different since the former consists of a building of three rooms and a vestibule, while the latter is an open-air deposit with very little trace of architectural features. The physical disparity would seem to be reflected in the contents of the two shrines, since only three, or four if the temenos wall at Piskokephalo is accepted, categories are common to them both; more remarkable since the shrine at Archanes contains 28 different ones. The overlap is primarily in the various shapes of pottery. Of the complete list of 65 categories 31 are not found at either site.

Neopalatial I In this period another two rural sanctuaries, Kato Syme and Rousses, are included in the sample. Again they are of quite different physical character: the shrine at Rousses comprises a small building with three main rooms, within which all reported cult activity is confined. At Kato Syme in this period a multi-roomed building was present, in which were found several pieces of cult equipment, but which may

possibly have served only a subsidiary role in the worship at the shrine. In the open area of the sanctuary was a large platform surrounded by a wall and much evidence of the use of pyres with the remains of sacrifices and votive offerings.

These two shrines share five categories of feature and object, including the use of fire without an associated structure and the presence of organic remains which may be considered as offerings. Both sites also included stone, single cupuled vessels or libation table, presumably also connected with the action of making offerings.

33 categories were not found at either shrine.

Of some interest is a comparison between the sanctuaries at Archanes-Anemospilia and Kato Syme as they are the two rural sanctuaries with the greatest number of categories present. Although the former has been dated as protopalatial it is at the very end of the period, at the transition between MMII and MMIIIA so that the chronological disparity between it and Kato Syme which seems certainly in use from the beginning of MMIII, possibly earlier, is not very great.

Both have 28 categories of feature and object present, of which 17 are common to both: three architectural or natural features; eight categories of equipment and six in the votive class of objects.

Neopalatial II In this period Kato Syme is the only rural sanctuary at which cult activity has been reported. Even here the excavator noted that the few sherds did not yield information regarding the nature of the worship in this period and that the shrine was possibly largely abandoned (Lembessi (1981c) 15). It has been before suggested that the use of peak sanctuaries also declined in this period (Platon (1951) 159) and at Juktas also it is represented only by a few sherds.

Postpalatial Worship at the sanctuary of Kato Syme is much more fully documented by the finds for this period with a possible 15 categories of feature and object recorded. The only other rural sanctuary in use is a rather rudimentary one on the sea-shore near Mallia at Kremasma, which has only three categories of object present and no associated architectural remains. The area for comparison is therefore extremely limited and in fact the two sanctuaries have only animal

figurines in common.

The site type here called rural sanctuary is a very small and rather heterogeneous group, which is reflected in the low level of comparability between most of the sites. Only Archanes-Anemospilia, a protopalatial shrine, and Kato Syme in the neopalatial I period show any degree of compatability.

Peak sanctuaries

A total of nine different sites were included in the sample, several of which were in use for more than one period. There is evidence at Juktas for use in all periods, including neopalatial II and postpalatial at which times no cult activity has been recorded at any other peak sanctuary in the sample.

Taking the evidence from all sites in all periods 46 categories of the 65 listed have been reported from the peak sanctuaries in the sample. This is the same number as rural sanctuaries, though the details are not identical.

Juktas is pre-eminent among the sanctuaries studied of this type both in the large range of features and equipment found and the complexity and relative sophistication of the arrangements present

there. In each of the chronological divisions, when other peak sanctuaries were available for comparison Juktas has produced the greatest number of categories, up to 33 in neopalatial I.

Prepalatial Evidence for some use before the palatial period has come from only two peak sanctuaries: Juktas and Petsophas, though Faure ((1972) 402) has noted possible EMIII sherds at certain others. At Juktas the evidence is also only in the form of sherds so that the use of the site at this time cannot be proved to be cultic, but given its location and later history it seems assured.

At Petsophas some of the figurines found have been seen as having prepalatial affinities (Evans (1921) 151-52; Platon (1951) 122; Warren (1973) 143-44), so that a cult use here in this period seems certain.

The only possible category which the two sites have in common is that of the temenos wall. However there is a great deal of dispute about the dating of both these structures and so it is a very tentative comparison.

Protopalatial The beginnings of this type of

sanctuary have been noted in the period before the palaces were built, however the protopalatial sees the greater use of this type of sanctuary, with the highest number of sampled sites: all nine, though the evidence of use at Kophinas is very limited, and it is also the period of the greatest amounts of material present: Juktas has the widest range of categories reported, up to 28, though this is fewer than in the following periods.

Certain categories are found in a noticeable majority of the sites, with pottery of some kind reported from all (*pace* Rutkowski (1986) 85,87), though at Maza it consisted only of a possible fragment of a clay kernos.

Ash layers resulting from the lighting of bonfires on quite a large scale were found certainly at seven of the nine in this period, and from Kophinas in the following. They may well have originally been present at the other shrine, Karphi, which was badly denuded. This is indicative of a strong identity of cult practices at this site type.

In the votive class of objects there was also almost complete uniformity in the presence of animal figurines, human figurines, both predominantly of clay, and of separately modelled

human limbs or parts. The first two are absent only at Kophinas where they are found in the following period, and the last at Kophinas and Modhi.

On the whole the reported objects from peak sanctuaries in this period come mostly from the votive class. Of the 26 listed categories in this class, including tools of various materials, only three are not found at any site, one being human figurines of material other than of clay or metal, which are however found in abundance.

The various types of cult apparatus are scarcer, with 16 categories of 26 absent from all sampled sites. Of the ten found five are pottery of the more general, domestic kinds. The more specialised vessels the kernos and libation table were found at one or two sites, and the rhyton at three.

Features, architectural or natural, are largely absent from the sites in this period, except the ash layers already noted. At Juktas a natural pit seems to have been used for depositing offerings, and the temenos wall there and at Petsophas are the only other possible members of this class, again depending on dating.

It is apparent then that there is a fairly strong degree of consistency of both what is present and what is absent (rather that is than a wide range of categories being found at single, different sites) at peak sanctuaries in this period; such consistency is rare at other site types.

Neopalatial I Peak sanctuaries seem to undergo some changes at this period. Fewer sites are in the sample, only five, and thus four have no reported use, and it is also the period which saw the building of most of the structures found at this type of site. Also the majority of the finds at Kophinas have been dated to MMIII so there was increased use at that site, and at Juktas the number and quality of the categories of objects found was larger, up to 33. One suggested reason for these changes is an increase at this time in the power of the rulers at Knossos which led to a more systematic and centralised control over large areas of the island (Peatfield (1983) 277; Rutkowski (1986) 95), though this is not entirely certain.

Nine new categories of object or feature are present, whereas ten of those found in the protopalatial period are no longer reported from

any site. Of those discovered for the first time three are architectural features: the masonry, free-standing altar at Juktas (which may however have had protopalatial antecedents), the bench and the pillar, the last again only at Juktas. This increase is not surprising since it is the period in which most of the structures and enclosures at peak sanctuaries were built. The temenos wall, or some kind of enclosure wall, are now found at all sites included in the sample, and benches or more or less rudimentary form at three of the five. The discovery of the altar at Juktas, the only one identified at any peak sanctuary in any period, seems of particular significance, since it was found on the lip of a chasm where many votives were deposited and must be indicative of the nature of the worship carried out here, possibly denoting chthonic associations.

In the equipment class horns of consecration, the ladle, stone vessels other than the libation table, and the lamp are the additions. All except the lamp from Kophinas are however unique to Juktas.

The single cupule stone vessel known as the libation table came from all five sites, and at three of these examples were found with

inscriptions in Linear A (Juktas, Petsophas and Vrysinas). Sherds inscribed with Linear A characters came also from Traostalos (Davaras (1965), (1966) and (1974b).

The number and variety of votive objects also seems less, with no weapons or model beetles for instance, and those which are present are found in a smaller proportion of the shrines, though the problems of dating and details available in published reports make a completely accurate picture difficult to achieve. For instance the increase in the use of stone libation tables may not be as dramatic as it appears since for many examples the dating to this period is on the grounds of the Linear A inscriptions only and some may date to the previous period, or the transition between.

The appearance of structures and buildings at most peak sanctuaries in this period is perhaps the most significant and noticeable change. Several peak sanctuaries fell into disuse: Karphi, Maza, Modhi and Zou of those included in the sample, but whether this is due to a general decline in the popularity of the worship taking place at such sites; or whether they were abandoned for individual reasons, peculiar to each

site, such as locality, accessibility and the presence of more popular sites in the same region, is not entirely certain. Any changes may not also have been as sudden or dramatic as a division of the reported objects into two distinct chronological bands seems to indicate, the picture may have been more one of a development and evolution. The trouble and labour involved in building structures and enclosures in such places does not seem indicative of a lessening to any great extent of the regard this type of sanctuary was held in.

Neopalatial II At this point worship at peak sanctuaries as a whole certainly suffered a decline, and Juktas is the only one from which any evidence of use has come and that is much decreased. The only objects reported from the site dating to LMII are some pieces of pottery and some seals (Karetsou (1975a) 339, (1976a) 415, Fig.230, (1978a) 255, Fig.169a, (1980a) 343). This decline has been attributed to natural disasters which the island may have suffered around LMIA/B (Rutkowski (1967) and (1986) 95-96; Peatfield (1983) 277-78) related to the eruption of the volcano on Thera and its after effects, about the chronology and consequences of which

there is however much dispute (Doumas (1978)). If indeed people perceived their sufferings as emanating from the sky it may well have produced a diminution of regard of sanctuaries on mountain tops and the character of the worship taking place there, though similar declines can be noted for other sanctuary types also.

Peatfield (*loc.cit.*) relates the decline more to the demographic changes which can be noted after LMIB. For whatever reasons these changes occurred settlements were abandoned and so the peak sanctuary sites found in the vicinity and visited probably mostly by the local population would therefore also have ceased to be frequented. At Knossos some occupation did continue and so the closest peak sanctuary, Juktas, which was also perhaps the most important on the island, was still visited by worshippers, but to a much lesser extent. That the cult at peak sanctuaries was not entirely abandoned or disregarded is shown by this continued use into the next period.

Postpalatial Again Juktas is the only peak sanctuary site from which has come clear evidence of continued cult use (Peatfield (1983) 278 mentions nine other sites with some LMIII material, including some from those studied here,

however no references to the material are given).

At Juktas the shrine seems to increase again in popularity, but not to its former extent. Twelve of the categories listed can be dated to this period including some of the architectural features built in preceding periods and still in use. Pottery was one of the main types of object found and also some votive objects, especially animal figurines.

The most remarkable discovery however consists of fragments of a figurine comparable to those from Gazi, that is the goddess with up-raised hands. This has very important implications for the nature of the worship taking place at this site and its possible relationship with that of settlement site shrines. It also seems likely that the goddess figurine was housed inside the building at the site and so the main cult may have moved indoors and no longer been celebrated in the open air, which formerly was one of the most characteristic features of worship at peak sanctuaries. If so this would indicate a major change in the nature of the worship at the site, formerly centred around the chasm and altar, and perhaps also in the character of the divinity worshipped. Final publication of the material

from this complicated site should resolve this important question.

To sum up, in the protopalatial and to a lesser extent in neopalatial I peak sanctuaries show quite a strong degree of consistency in the features and objects used for cult activity, and distinct in some ways from those found at other sanctuary types. After this time the decline of the peak sanctuaries is noticeable and most were completely abandoned, except for Juktas which in many ways was a remarkable site, perhaps due to its proximity to the most important palace of the island at Knossos, which was also the only one which continued to be inhabited to any extent.

Cave sanctuaries

Seven different cave sanctuaries were included in the sample but more than any other type of shrine site caves tended to be cult places over more than one chronological period. Dating the cult use is sometimes difficult when the cave was also used possibly for habitation and burial and precise dating of individual objects is also often very tentative, making comparisons by period sometimes uncertain.

Of the 65 possible different categories of feature and object 39 have been reported at one or more of the caves in the sample over all periods. This is fewer than those found at any other shrine type, but may be accounted for in part at least by the almost complete lack of any architectural, and securely recognisable natural, features. Psychro is the cave which has the most categories of object, 24 in neopalatial I, and, like Juktas among the peak sanctuaries, it seems to have been the most popular cave sanctuary and was in use over more of the periods studied here than any other. It is also worth remembering here that it is only the number of different categories which is being compared, not actual amounts of each and at some cave sanctuaries, for example Arkalochori and Psychro, large amounts of individual categories were deposited making the material consequences of cult activity more impressive than it may seem when only variety is considered.

Prepalatial No certain evidence of cult use has come from caves in this period (Tyree (1974) 64-65); several caves have produced objects belonging to EM/MMI but these are considered as resulting from burials or a habitation use. Some sort of religious activity may have been associated with these uses but it is extremely difficult to isolate evidence of such. Perhaps the most convincing evidence, though still not certain,

comes from Psychro where an EM/MMI three-sided prism seal was found (Kenna (1960) 94, no.47; Boardman (1961) 69) and some of the bronze cutters and tweezers may be EM (Boardman (1961) 31).

Protopalatial Four caves in this period seem to have had some cult use. At Kamares the evidence for ritual activity is very strong and Pendlebury ((1939) 144) dates the beginning of the shrine in the cave of Psychro to this period. The only evidence of possible architectural features consists of traces of walls of uncertain purpose in Kamares, which is also the cave with the greatest number of different categories, nine, though many of these comprise different pottery shapes.

Pottery is in fact one of the most frequently found types of equipment at this period and was perhaps used to contain offerings; remains of grain were found in Kamares cave. A 'fruitstand', a type of vessel more commonly used in settlement site shrines, was also found here and was probably a type of offering vessel. Other kinds of objects from caves in the protopalatial are few, animal and human figurines came from Kamares and Psychro respectively, metal tools and a seal from Psychro. The range of

features and objects associated with the cult use of caves is therefore very limited at this period, and they do not seem to have been a significant sanctuary type.

Neopalatial I The number of caves in the sample with evidence of cult use rises to seven in this period and the finds from them cover a much wider range, although there are still 32 categories which are not found in any cave, indicating an increase in use and a development of the cult taking place.

This development is highlighted by the appearance of built and, probably, natural altars in three caves. Also for the first time is clear evidence of the practice of lighting fires, in the form of ash layers in two caves, both with altars. The fires in Psychro were certainly associated with animal remains and probably at Skoteino also so that the purpose of the fires was presumably for burning sacrificial victims for offerings, or perhaps cult meals.

Pottery is again an important category of equipment and the most consistent element found, coming from all caves in this period. Various forms of vessel were used, including pithoi,

indicating the storage of material from offerings.

More specialised forms of offering vessel appear now with a probable kernos from Skoteino only and, most frequently, the stone single-cupuled libation table, from three caves, as well as the more elaborate form with three cupules from Psychro which was inscribed with characters in Linear A. Linear A and hieroglyphic inscriptions appear also at the cave of Arkalochori on some of the votive axes.

The range of votive objects is also greatly expanded in this period, though several individual caves did not contain a large variety; many occurred only at Psychro which in this period produced 24 different categories of object and feature. The double axe is found for the first time now and in fact is more popular in this period than any other. Examples came from three caves: Arkalochori, Psychro and Skoteino; in large numbers and including very elaborate and beautiful ones from the first in particular. Blades and weapons, in votive forms, also come from the same three and possibly two others showing a strong degree of consistency in the choice of votives offered.

Human figurines, in clay or bronze, were

found at three caves also: Chosto Nero, Psychro and Skoteino. At Psychro both male (predominantly) and females were depicted, at the other two caves all the figurines were male. Animal figurines again in clay or bronze came from two caves in the sample, Chosto Nero and Psychro where they were mostly in the form of bulls. Other votive categories, notably sealstones and model birds are found only at Psychro which seems to have attracted a much wider range of offerings than the other caves at this time.

The increase in the popularity of caves as cult places in this period, reflected in the greater variety and number of objects used and offered, took place therefore before the most serious decline of peak sanctuary sites and not after as has sometimes been thought (Rutkowski (1986) 95-96).

Neopalatial II Although the same sites are included in the sample for this period as the preceding this is mainly on the grounds not of discovered objects, except Psychro, but that there is evidence for cult use in them also in the following period and it seems unlikely that a complete and absolute break in their use would have occurred even if it declined markedly. This

apparent hiatus is probably related to a decrease in use similar to that noted at all other types of sanctuary.

At Psychro only has an object dating to this period been found in the form of at least one seal, a category peculiarly associated with Psychro among the caves. The dating is not absolutely secure, nor can it be guaranteed of course that they would have been deposited in this period and not later. The difficulty of dating certain objects may also be partly behind the apparent complete lack of objects in this period, but it is certain that a drastic decline took place in the cult celebrated at these sanctuaries along with others. It seems therefore that there was a general decrease in cult activity for a short period, perhaps as a result of upheavals in the population, rather than a deliberate and emphatic turning away from one type of cult place and its associations to another.

Postpalatial The decline was not complete or irreversible however and the cult in caves recovered to some extent in this period, though on the whole, judging from the material found, not quite to its former level: 6 caves are included in the sample, Psychro contains a possible fifteen

categories and the others have fewer than ten; 42 categories have not been reported from any of the caves sampled. Features and objects which are no longer apparently part of the cult apparatus of caves are the masonry man-made altars, and no natural ones have been identified either, the kernos, the 'fruitstand' and the stone libation table.

The practice of lighting fires for offerings of sacrificial animals continued at both Psychro and Skoteino. Pottery is again the predominant category of cult equipment, found at all caves, though apparently in less various forms.

Votive objects which continued to be offered were both human and animal figurines, though perhaps in smaller quantities (Tyree (1974) 101-102). Three caves, Patsos, Psychro and Phaneromeni contained human figurines, at the last in bronze only. The only female figurines, apart from the head vessel mentioned below, again came from Psychro. Animal figurines are also less frequently found and come from two caves only: Patsos and Psychro, in bronze or terracotta. Bronze weapons are again the other main votive object, also decreased in numbers (Tyree (1974) 106) and come from three caves, though the dating

is not always certain.

The double axe is certainly less common being found at only one cave: Phaneromeni. Other categories found at a single cave are seals, jewellery and stone tools.

Certain categories now appear for the first time. Horns of consecration have been found at only one cave in any period, Patsos, and rhytons, in the shape of bulls, came only from Psychro. At Patsos also was discovered the unusual female head vessel, the only separately modelled human part found in a cave, which may possibly have been crowned with snakes, though some interpret the coils as representing hair.

These new categories appear at single cave sanctuaries only and show no consistency of use. Their introduction means however that cave sanctuaries as a whole cannot be so distinctly separated from other types of sanctuary where these categories were also found, though their use does seem limited.

The other category which may appear at this time, dating being again a problem, is the important one of aniconic cult object, at Amnisos-Eileithyia. This is the only certain instance of

a cult object of any kind identified in a cave, though Faure has recognised them in natural concretions elsewhere, such as in the cave at Skoteino (Faure (1964) 163-64). It is interesting that it appears, if the dating is accepted, in the same period as the first cult image, anthropomorphic in this case, at a peak sanctuary also, Juktas.

The material evidence from the postpalatiakl period therefore suggests that the cult in caves recovered from its previous apparent decline, though fewer sites are in use and the overall quantity and variety of deposited material may be less. In this period however cult caves are certainly more popular than peak sanctuaries, of which only one, Juktas, was in use.

Certain categories occur quite consistently in the cave sanctuaries in different periods, mainly human and animal figurines and votive weapons and tools. Pottery was a very frequently found class of equipment in all caves in all periods and must have been used to make and store offerings of other kinds. Some uniformity is therefore recognisable, but as with other types of sanctuary these compatibilities are neither absolute nor often even based on a majority of

sites; there are many categories that appear singly or infrequently.

A note on methods of analysis

The material evidence resulting from ritual activity in a sample of shrine contexts has been collected by individual category of feature and object and by site type. The analysis consists primarily of a numerical comparison of the occurrences at different types of site in the different chronological periods. Thus the large amount of religious data has been broken down into its constituent parts and these then discussed in relation to the major divisions by location and chronology; and also to some extent how they associated with other features and objects. Degrees of compatibility or differentiation both within and between the site types were noted when apparent.

The method used was a simple numerical comparison of the examples found and a discussion of the results thus obtained. Other, more statistically based methods were considered but rejected as dependable results could not be assured on account of the unsuitability of the material to such methods.

One such is the *coefficient of correlation* or *similarity coefficients* (see Table II) used to measure the closeness between variables (Harper (1982) 126-33); which in turn forms part of Renfrew and Sterud's *close proximity analysis* (1969), which was another method

considered.

The problem with both is that although the number of site/time units and categories is large the overlap of objects in common between them, the similarity coefficient, was on the whole very low and the numbers thus achieved all very similar. This leads to a high degree of clustering of values so that a seriation is not possible; instead a great deal of interlinking results. Also in calculating the similarity coefficients between the sites it is not always the same objects which are common to all and this is not revealed in the analysis; it is still basically only the compatability of any two sites which is being assessed at any time, rather than achieving overall patterns of objects recurring in association.

Problems occur also if straightforward percentages are used: in the prepalatial period for instance the number of sites is very small and any percentages are therefore not very useful or statistically significant. In all periods because of the low frequency of occurrence of many categories of object as a proportion of the number of sites there would be a lot of very similar values as percentages, so that the information achieved would still be rather undifferentiated and hard to assimilate. Again only two-way comparisons are possible and overall patterns will not emerge.

The fact that valuable and reliable results could not be achieved by such methods applied to the data is of course significant in itself. It would seem indicative of a situation where there is not a great amount of differentiation between various sites when looking at the whole range of possible features and objects found in shrine contexts, though the number of individual occurrences in each case may be small. To put it another way: there is a very long list of categories which have been found in shrine contexts and therefore put to a religious use. However very few of these categories occur at a large number of sites in any period. Categories which occur at only one site type, or are excluded from any, are also extremely small in number.

CHAPTER SIX

The wider picture: Conclusions

6. THE WIDER PICTURE: CONCLUSIONS

Other contexts

In the foregoing discussions certain factors or contexts have been taken into account in the way the material has been ordered. Firstly the geographical limit is set by the confines of the island of Crete, with occasionally distinctions made within that where apparent. The locational aspect was also inherent in the division of the sites into four types which form one of the axes of the main comparison. The status and quality of the evidence, its position within the shrine and state of preservation, were discussed and some method of accomodating this factor was attempted by the postulated levels of evidence.

Finally, and crucially, the chronological context, or diachronic aspect, was ordered by the division of the sites and material into the five time bands according to the system devised by Platon. These cover a very large span of time, from the third millennium B.C. to roughly the tenth century B.C., and the potential for diversity within this is great, therefore only sites which belong to the same time band are directly compared.

The above contexts were discussed also by Renfrew ((1985) chapter X) where he discusses still further possible factors which may have a bearing on the processes at work which led to the material evidence preserved at shrine sites. The major one of these is the social context: the economic and political background and the way the society was organised. It might be expected that the material from a small domestic single household shrine would differ from that of a palatial, royal sanctuary, as also from a peak sanctuary intended for strictly local use and one perhaps attached to a palace which attracted worshippers from a much wider area. In this way some of the differences in the quality, range and amounts of material could to some extent be accounted for by the differences in resources and status of the worshippers visiting the shrines, and also the relative numbers of visitors.

This aspect in turn has a strong linkage with the chronological aspect since the most influential social circumstance in the period studied is the development and collapse of the palatial system and all that implies for socio-economic organisation and administration of religion which of course also forms the basis of the chronological divisions used. Thus the terms prepalatial, proto-, neo- and postpalatial have both chronological as well as social implications.

If the palatial system is seen as a centralised power exerting control, perhaps through intermediate local power structures, over the whole of Crete, the religion itself might have been susceptible to state control and organisation. It has also been suggested that the Minoan religion of the palatial period was a means of cultural colonization or acculturization and used to extend Minoan control over other areas: such a theory has been used to explain the situation at Nirou Chani and the strong Minoan influences at Akrotiri on Thera (Evans (1929) 284-85; Marinatos, N. (1984b)).

That shrines within palaces were closely integrated in the economic life and industrial processes of the palatial system has also been suggested (Marinatos, N. *op.cit.* esp.167-68) to the extent that the society may indeed have been theocratically based. Thus again this additional social and economic factor must have influenced the shape, organisation and contents of palatial shrines, as opposed to those outside palatial control either physically or chronologically, and may again account for some of the perceived differences. The palatial shrines certainly tended to have more subsidiary rooms, containing what has been here called level 2 evidence, connected with purposes of storage, preparation and sometimes industry or crafts.

In prepalatial times very few shrines have so far been recognised and these contained a relatively small range of features and equipment, both within each individual shrine and also the total number in use at this period. This may be a reflection of the inchoate state of religious development.

No cult activity has been certainly identified from caves at this period, nor at any rural sanctuary. The beginnings of worship at two peak sanctuary sites shows that this type of site did not owe its existence to the conditions created by, or connected with, the building of the palaces and the social system this implies. Of the two settlement site shrines that at Myrtos may have served the whole community and to this extent may be called public, so that not all worship at this time was domestic and private and the foundations for the system of worship beyond individual households are already laid.

Obviously great changes began with the building of the first palaces when there is a noticeable increase in the types of site in use and numbers of each, and the repertoire of equipment present in all types is much expanded. It is perhaps at this period that distinctions between the cult material at the different site types are most apparent, with the rectangular

offering tray found only at settlement sites and the fruitstand almost exclusively so. Human figurines on the other hand and separately modelled parts and animal figurines are a marked feature particularly of peak sanctuaries together with the pyres by which they were offered, all forming an almost completely consistent unity at this type of sanctuary. It is in fact also the period of the greatest popularity of peak sanctuaries.

The protopalatial period also encompasses the use of one of the rural sanctuaries, that at Archanes-Anemospilia. This is very close to the peak sanctuary on Juktas, being on one of the flanks of the mountain, and it is interesting to see the differences between the plan, construction and contents of each shrine both of which may also have been connected to the palace at Knossos with its own shrines. Cult activity at Archanes was confined within the building, or temple, whereas the rooms on Juktas were not yet built and worship was out in the open. Many types of votive object were offered at Juktas whereas no models of human or animal shape were found at Archanes.

The great highpoint of Minoan civilization and society falls within the neopalatial I period and it also sees the largest number of shrine sites in the sample, all types being represented with caves

flourishing for the first time. These sites contain the greatest range of feature and equipment encountered and there is a diversity of those in use both in shrines of each type and between them so that patterns of recurrent associations and uniformity of cult are very hard to recognise and the overlap of categories is often between site types as much as within them.

However there are certain basic similarities, or a core of elements, between all and this may reflect a degree of central control based on the palaces. It has also been proposed that the apparent wide range of features and objects with less easily distinguishable overlap is due not so much to a diversity of belief and practices as the greater complexity and richness of Minoan society as a whole, which extends to the field of religious expression and the range of objects available, adopted or adapted for cult use.

The destruction of the majority of the palaces in LMIB must presumably have brought to an end the social system they engendered (Renfrew (1981) 29) and must therefore have also had an affect on cult practices. Knossos was the only palace site which continued to be occupied at this period, which has been here called neopalatial II, and it has been suggested that most if not all of this use was related to religion, possibly based on the idea of the sanctity inherent in the

palace site (Popham (1964) 8).

However in the postpalatial period despite what has been seen as the collapse of centralised control (Renfrew *loc.cit.* and (1985) 401) and the development therefore of what may essentially have been local cults it is here proposed that the degree of uniformity in the plan and contents of shrines, mostly in the type of bench sanctuary with the goddess with up-raised hands which predominated, was in fact greater, suggesting a more standardised religion. Whether this in turn had any connection with the character and society of the Mycenaean population which now may have been dominant is not within the scope of this present study to determine as it would require an analysis of the mainland religion also, but it again demonstrates the potential influence that social and what may be called political factors could exercise over the religious sphere.

The uniformity of cult in the postpalatial period is seen in the presence of tubular vessels and anthropomorphic figurines and bench-altars at many settlement sites and now also probably the peak sanctuary on Juktas contained a goddess figurine at this time. There are still differences in cult practices as demonstrated by a comparison of the material remains from the Piazzale dei Sacelli at Haghia Triadha (c) and the majority of small, enclosed

settlement sites of the period, which do not seem closely comparable. In fact the former seems on the whole more similar to the rural sanctuary at Kato Syme at this phase and shares with it the open-air practice of worship and an abundance of votive deposits but no cult figurines. It also has in common with the cave at Patsos a very unusual form of horns of consecration with a central cylindrical projection. The effect of the collapse of the palatial system therefore seems to have been the evolution of in some ways more uniform cult places and contents, but still with some divergences and overlap between the site types.

One further factor possibly at work and affecting the material evidence, but one whose influence is harder to detect and isolate is the seasonal one. Certain sites, especially caves and peaks, may have been visited only at one time of year and the kind of ceremony and aspects of worship invoked would have had a particular appropriateness at the different seasons related to the vegetational cycle or special events in the calendar. Thus amongst the archaeological record may be objects which should be related to this factor, but are now indistinguishable from the rest, and certain shrines where the choice of objects used is a reflection of the season to which their use was limited but which is difficult to ascertain.

Other types of evidence

As well as other contexts there are also other types of evidence of a religious nature apart from the material found in actual shrines: namely iconographic and written. It is necessary to mention these here and assess to what degree they accord with the evidence of the material remains, or whether they can illuminate it further. They can only be mentioned briefly as both are subjects of great complexity and both also have limitations and drawbacks, due partly to interpretation but also more specifically to their restricted chronological occurrence.

Iconographic sources provide an important body of evidence and one which ran through much of the discussion in Nilsson's study (1950) and have also been the main theme of a work by Rutkowski (1981), all of which cannot be dealt with in detail here. This evidence comes in a variety of forms and materials including gold rings, stone seals, clay sealings, stone vases, frescoes and models; anthropomorphic figurines, which have been discussed elsewhee, can also be included in this class of evidence.

The evidence provided by iconography can be seen as of two different kinds. Firstly it can fill in details which may have been lost, such as of

architecture or natural settings, especially trees and enclosures and the positioning of objects, such as the horns of consecration. Also, perhaps more importantly, though more subject to difficulties of interpretation, these sources are the only available source of information of religious processes and ritual activity actually taking place, rather than completed and devoid of direct human associations and involvement, which is true of the material left in the archaeological record. They are also our only insight into the religious imagination of the people and a visual representation of their beliefs.

Especially important in this context are the magnificent gold rings, found mostly on the mainland though probably of Cretan origin, such as from Mycenae, Tiryns, Pylos, Dendra and Vaphio but also from Crete, from Archanes, Isopata and Sellopoulo (Rutkowski (1981) *passim* and (1986) figs.291-301). These are also important for their portrayal of divine beings in human form, interacting with humans, and also the semi-divine daemons (Baurain (1981)).

The limitations of these sources of information, the gold rings in particular, stem partly, as mentioned above, from their date of manufacture which has been argued (cf. Renfrew (1985) 399) as probably confined to the neopalatial period. This means that

their immediate relevance, remembering the chronolgoical context, is restricted to that period and any projections backwards or forwards to other periods must be treated with caution.

Other drawbacks, applicable to all iconographical sources, arise from the problems of interpreting products of the artistic and religious imagination of the Minoan, more so than with the features and objects which are the main basis of this study. Artistic conventions are involved, related also to the type of material used and the limitations of size, which lead to the introduction of symbolic forms the precise meaning of which is now lost but was instantly appreciable to contemporary viewers. Also linked are artistic trends and tastes which may have prevailed at certain periods and also must have had an affect on the precise methods of portrayal. All our interpretations of these are bound by our own contemporary assumptions which can lead to a too subjective view and personal conception of the artistic and iconographic conventions of a people separated by a great gap in time (Morgan (1985)).

The scenes depicted cannot be related on the whole precisely to a particular site or shrine, or only loosely or generically such as the Grandstand Fresco which may portray part of the palace at Knossos and the

Peak Sanctuary Rhyton (the scene on which does not involve humans) shows perhaps a type rather than an actual site. Thus the evidence they provide cannot be directly applied or superimposed as it were on to the material studied here.

Generally the picture presented by the iconographic sources is certainly not contradictory to that arising from the material evidence, involving as it does vessels and symbols well known from the archaeological record. There does seem however to be an emphasis on worship taking place outdoors with few related structures, of which may be mentioned columns and pillars in small enclosures, and the greatest importance is placed on natural elements: trees, rocks and flowers which of course do not survive or cannot be recognised. This is of course of interest in itself and has great significance for the overall picture of Minoan religion and filling in pieces missing from the archaeological record.

The written sources consist of Linear A and Linear B, only the latter of which can be translated. Linear A inscriptions have come from all four types of sanctuary site and this language, particularly the so-called libation formula, may have had a strong religious content and function. It is interesting to note that there are no Linear B inscriptions from the

shrines studied in the sample, though undoubtedly the tablets deciphered from elsewhere have a frequent religious content.

The evidence supplied by Linear B suffers also from a chronological limitation in that it occurs only after the majority of the palaces, with the exception of Knossos, were abandoned. Any projections of the evidence backwards in time of the situation presented by their interpretation must be of restricted value, particularly as the language seems to have arrived with a foreign population.

Despite the decipherment of Linear B by Ventris and all the subsequent work done on it there are still doubts over the precise interpretations of the translated material and the exact amount of significance to be accorded to certain words. How the literary evidence relates to the archaeological remains has therefore not yet been wholly established. The picture which emerges is not always clear, for instance the number of potential divine recipients of offerings seems larger than the material evidence might warrant (Chadwick (1976) 84-101; Hagg and Marinatos, N. (1981) 215-16; Renfrew (1985) 399-400) and on the whole caution is necessary in applying these sources to an interpretation of the material remains.

In one important aspect the literary evidence is

greatly different to that recovered from material sources, as noted by Renfrew (*loc.cit.*) and that is the mention of male recipients of offerings, including ones with recognisable names of later gods, such as Zeus and Poseidon. This is not borne out by the finds from Crete for this period, though again the mainland origin of the language and its users has to be kept in mind. The only possible male figurines from Crete of important status are one from the Shrine of the Double Axes at Knossos (m) which was found on the altar with the goddess figurine, but which is depicted in the act of making an offering and therefore cannot be itself divine, and a figurine on a base from Kannia. This male may have been wearing a sort of armour but there are no indications again of divine status. There is therefore no physical representation in shrines in Crete of a male god, though there is also some iconographic evidence of males with elevated status, if not divine, seen especially in the so-called Master Impression from Chania (Hallager (1985)).

Having brought into the discussion the possible modifying influence of the social factor and the evolution through time of cult practices and their possible relationship, as well as further types of evidence, it is time to return to the central question of the study: whether one goddess or many was

worshipped at the different types of site or even in the same shrine where more than one goddess figurine was present.

There are obvious differences in cult practices by site type and through time, such as bonfires at peak sanctuaries, tubular vessels at settlement sites and indeed the general predominance of ritual equipment including special forms, for enacting cult rather than the results of that activity at settlement sites, and the large deposits of votive objects on the other hand at peaks and caves. These differences are certainly to some extent influenced by the social factors discussed above, and also the precise character of the worship at various site types must have been closely involved with the prevailing environmental and physical conditions; that is the form the cult took is bound up with the choice of location for it: a cave as opposed to a peak, but the religion may still be based on a communality of belief.

It is noticeable indeed that there are very few (portable altar with incurved sides; tripod table; rectangular clay offering tray or hearth-all from settlement sites) categories which are found only at one site type, and not a great number which are entirely excluded from any, so that it is hard to detect any situation of exclusivity and discreteness

for a particular category or site type when an overall view is taken. Looking at it another way there is a large amount of overlap of categories, especially through time, and most features, objects, votives and symbols are found at all site types in greater or lesser numbers. For instance the horns of consecration and the double axe, often taken as the most characteristic components and symbols of Minoan relgion have been found at examples of every site type in differing numbers at different periods. To further emphasise this point it can be noted that of the 65 categories studied 64 are found in one or more settlement site shrines over all periods, the exception being only the temenos wall, which was replaced in these shrines by its own walls.

To sum up: there is certainly detectable an overlap between the site types but with differences in details at various sites and times. Some objects also are completely unique in the archaeological record, such as the votive robes and marble cross from the Temple Repositories at Knossos. It can also be noted that certain sites, such as Juktas and Psychro, are pre-eminent among sites of their type and contain a much greater number of categories than any other.

This would seem to suggest that essentially the same cult forms were practiced in all the different

site types, perhaps with particular emphasis placed on certain features or characteristics, which may have been bound up with the location of the site, presumably chosen for this reason. Certain apsects would be naturally more apparent and dominant at certain site types and others would be less appropriate, thus no marine-derived objects or imagery, apart from the boat carved on the libation table from Patsos, are found in caves, where the martial aspect, demonstrated by swords and daggers, is more prominent, but again not by any means exclusive.

It is perhaps true that the activities of worship of any religion might be expected to require certain types of equipment, for instance vessels to facilitate the making of offerings in both liquid and solid form, some kind of altar and so on and so there will always be some level of similarity. However it has been found here that the sharing of categories extends through the whole range of ritual activity, studied through its material consequences in the archaeological record. Sometimes the overlap of individual categories is not great, for instance found at mainly one particular site type and much less frequently at others and would therefore be unusual in the archaeological picture of that site type, but its presence at only one implies that that category was thought appropriate for the worship there at some point.

It therefore seems probable that the same underlying, communal beliefs were held by the worshippers visiting the different site types. From this base of belief the forms the ritual took and the ceremonies involved differed in details. This in turn resulted perhaps from an emphasis of various aspects of the same divinity, felt to be present according to the naturally prevailing conditions and perhaps other factors. There are therefore differences in some details at the site types and also through time as might be expected, but there is also a noticeable degree of continuity in many elements including the horns of consecration, the appearance of the snake and the use of benches for altars, so that again the underlying beliefs have a sense of continuity also.

A study of the material evidence found at a sample of religious sites then suggests that the ritual activity taking place at the different site types had a common core of feature, equipment and symbols, and, the inference from this being, also beliefs. It can be proposed from the degree of overlap of the evidence that these beliefs were centred on what was a single divinity, particular aspects of which were emphasised at and perceived as more important at different site types. The evidence does not show a separation or discreteness emphatic enough to imply that these

amounted to completely distinct divinities.

The conclusion reached therefore on the basis of a comparative study of the material from a sample of shrines is that the religion centred on a single great goddess, or a concept of the existence of a divine being apprehended as female, with influence over every sphere of activity of life. The various aspects came out more strongly at different places and for particular needs, demonstrated by attributes and also variations in ceremonies, the equipment used and cult practices. It is possible that these were worshipped even at different sites of the same site type.

This interpretation is in line with Evans' picture of modified monotheism (Hutchinson (1962) 207; Hagg and Marinatos, N. (1981) 210-11; Renfrew (1985) 433), a picture which perhaps by the end of the period under study was developing, with more distinctions between the aspects evolving, and was therefore on the verge of a true polytheism, as seems to be suggested by the evidence of the Linear B tablets and the visible attributes of the goddess figurines, though there is still a discernible overlap.

Conclusions

Renfrew has stated in his authoritative work on

the cult material from Phylakopi: "..., we have no established rules of procedure for the study of early religions from archaeological remains, ..." (Renfrew (1985) 393). At the beginning of the present study certain aims were set out regarding the establishment of a methodology to approach evidence of a religious nature from a sample of sites on Bronze Age Crete. Several issues were discussed, such as the problems involved in the recognition of shrines and of religious intentions, and the question was also raised of whether it is possible from the material remains which constitute the evidence of cult to analyse the nature of that cult and whether it belonged to one or more divinities.

This involves the interpretation of material assemblages and the 'translation' of concrete objects into ideas of belief and contemporary conceptions of the religious and symbolic side of life. In this study the main emphasis has been placed on the remains discovered in shrine contexts, the material consequences of cult activity. It was assumed therefore that it was not merely fortuitous that certain features were built or adapted, equipment utilised and offerings introduced into a religious context, that is that there was choice and conscious decision which are evidenced in the archaeological record, and that this provides a direct reflection,

however diminished, of the religious beliefs of the Minoans.

The object was to present a systematic arrangement and overview of this evidence from a sample of sites and an evaluation of it, based partly on the numerical values achieved and also a comparative discussion of each category of feature and object, and then the picture which emerged for each individual site type.

The aims of this study have not been achieved as fully as was hoped due partly to doubts and ambiguities, or even gaps, in the available material, as well as the difficulties arising from handling such a large mass of material. This means that the analysis did not produce as detailed or finished results as might be desired, though an assessment of the overall picture was achieved.

The most complete picture and understanding can only be finally achieved by the full publication of many more shrines with precise details of context and association provided; a hope already raised by others such as Rutkowski. Otherwise it is not possible to realise the full potential of the material relating to religion and to achieve a more satisfactory systematic comparison.

Appendix

CATEGORIES REMAINING

Clay circular table on single foot - 'fruitstand'

Prepalatial	-	
Protopalaltial	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	cave:	Kamares
Neopalatial I	rural:	Kato Syme
	cave:	Psychro
Neopalatial II	-	
Postpalatial	settlement:	Kannia

Incense burner/hand brazier

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Vrysinas
	cave:	Kamares
Neopalatial I	settlement:	Knossos (d)
		Mallia (f)
		Mallia (h)
		Zakros (a)
	rural:	Kato Syme
Neopalatial II	-	
Postpalatial	settlement:	Gazi
		Kannia
		Katsambas
		Knossos (o)
		Knossos (p)
		Palaikastro (d)
	cave:	Psychro ?

Pottery - cup

Prepalatial	settlement:	Myrtos
	peak:	Juktas
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
		Piskokephalo
	peak:	Juktas
		Petsophas
		Vrysinas
	cave:	Amnisos-Eileithyia
		Kamares
Neopalatial I	settlement:	Knossos (f)
		Knossos (g)
		Knossos (i)
		Mallia (j)
		Mallia (k)
		Mallia (l)
		Palaikastro (a)
		Phaistos (c)
		Phaistos (d)
		Zakros (a)
		Zakros (b)

Neopalatial I (continued)	rural:	Kato Syme
		Rousses
	peak:	Juktas
		Kophinas
	cave:	Psychro
		Skoteino
Neopalatial II	peak:	Juktas
Postpalatial	settlement:	Gazi
		Haghia Triadha (b)
		Kannia
		Karphi (f)
		Karphi (g)
		Katsmabas
		Kephala Chondru
		Knossos (m)
		Palaikastro (e)
	rural:	Kato Syme
	peak:	Juktas
	cave:	Arkalochori ?
		Psychro

Pottery - bowl

Prepalatial	settlement:	Myrtos
Protopalatial:	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Juktas ?
	cave:	Kamares
Neopalatial I	settlement:	Knossos (c)
		Knossos (d)
		Knossos (i)
		Mallia (f)
		Mallia (k)
		Palaikastro (a)
		Pyrgos
		Zakros (a)
	peak:	Juktas
		Kophinas
	cave:	Psychro
Neopalatial II	-	

Pottery - bowl (continued)

Postpalatial	settlement:	Gazi
		Haghia Triadha (b)
		Kannia
		Karphi (c)
		Karphi (g)
		Knossos (m)
		Knossos (p)
		Palaikastro (d)
		Palaikastro (e)
	cave:	Psychro

Pottery - jug and teapot

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Juktas
		Petsophas
	cave:	Kamares
Neopalatial I	settlement:	Knossos (b)
		Knossos (i)
		Mallia (k)
		Palaikastro (a)
		Phaistos (c)
		Phaistos (d)
		Pyrgos
		Zakros (a)
		Zakros (b)
	rural:	Rousses
	peak:	Juktas
		Kophinas
	cave:	Arkalochori ?
Neopalatial II	-	

Postpalatial	settlement:	Karphi (b)
		Karphi (g)
		Kephala Chondru
		Knossos (m)
		Palaikastro (e)
	peak:	Juktas
	cave:	Skoteino ?

Pottery - storage vessels

Prepalatial	settlement:	Chamaizi
		Myrtos
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
		Piskokephalo
	peak:	Juktas
		Vrysinas
		Zou
	cave:	Kamares
Neopalatial I	settlement:	Knossos (d)
		Knossos (h)
		Knossos (i)
		Mallia (d)
		Mallia (h)
		Palaikastro (a)
		Phaistos (d)
		Zakros (a)
	rural:	Rousses
	peak:	Juktas
		Kophinas
	cave:	Arkalochori ?
		Skoteino ?

Neopalatial II	settlement:	Knossos (k)
Postpalatial	settlement:	Gazi
		Gournia
		Kannia
		Karphi (a)
		Karphi (c)
		Karphi (e)
		Karphi (f)
		Karphi (g)
		Knossos (m)
		Knossos (p)
		Palaikastro (d)
		Palaikastro (e)
	peak:	Juktas
	cave:	Psychro

Prepalatial	settlement:	Myrtos
	peak:	Juktas
	cave:	Amnisos-Eileithyia ?
Protopalatial	settlement:	Knossos (a)
		Mallia (a)
		Mallia (b)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
		Piskokephalo
	peak:	Juktas
		Karphi
		Modhi
		Petsophas
		Traostalos
		Vrysinas
		Zou
	cave:	Amnisos-Eileithyia ?
		Kamares
		Skoteino
Neopalatial I	settlement:	Knossos (b)
		Knossos (c)
		Knossos (d)

Neopalatial I (continued)		Knossos (h)
		Knossos (i)
		Mallia (c)
		Mallia (f)
		Mallia (h)
		Mallia (j)
		Mallia (k)
		Mallia (l)
		Palaikastro (a)
		Phaistos (c)
		Zakros (a)
		Zakros (b)
	rural:	Kato Syme
	peak:	Juktas
		Kophinas
		Traostalos
	cave:	Amnisos
		Arkalochori
		Chosto Nero
		Patsos
		Phaneromeni
		Psychro
		Skoteino

Neopalatial II	settlement:	Knossos (l)
	peak:	Juktas
Postpalatial	settlement:	Haghia Triadha (c)
		Kannia
		Karphi (a)
		Karphi (b)
		Karphi (c)
		Karphi (d)
		Karphi (e)
		Karphi (f)
		Karphi (g)
		Katsambas
		Kephala Chondrou
		Knossos (p)
		Palaikastro (e)
	rural:	Kato Syme
	peak:	Juktas
	cave:	Amnisos
		Arkalochori
		Patsos
		Phaneromeni
		Psychro
		Skoteino

Stone vessel - cup

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
		Phaistos (b)
Neopalatial I	settlement:	Mallia (l)
	rural:	Kato Syme
	peak:	Juktas
Neopalatial II	-	
Postpalatial	-	

Stone vessel - bowl

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
		Phaistos (a)
	rural:	Archanes-Anemospilia
Neopalatial I	settlement:	Knossos (c)
		Mallia (f)
		Mallia (j)
		Phaistos (c)
		Pyrgos-Myrtos
		Zakros (a)
	rural:	Kato Syme
Neopalatial II	-	
Postpalatial	settlement:	Kannia
		Karphi (d)
		Karphi (g)

Stone vessel - jug/teapot

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
		Phaistos (a)
Neopalatial I	settlement:	Zakros (a)
Neopalatial II	-	
Postpalatial	-	

Stone vessel - other, unspecified or fragmentary

Prepalatial	-	
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
Neopalatial I	settlement:	Knossos (c)
		Zakros (a)
	peak:	Juktas
Neopalatial II	-	
Postpalatial	-	

Metal vessel

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
Neopalatial I	settlement:	Zakros (a)
	cave:	Eileithyia-Amnisos ?
Neopalatial II	-	
Postpalatial	-	

Prepalatial	-	
Protopalatial	settlement:	Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
Neopalatial I	settlement:	Mallia (h)
		Mallia (j)
		Mallia (k)
		Mallia (l)
		Phaistos (d)
		Zakros (a)
	rural:	Kato Syme
		Rousses
	peak:	Kophinas
	cave:	Psychro
Neopalatial II	settlement:	Knossos (k)
Postpalatial	settlement:	Haghia Triadha (b)
		Karphi (f)
		Knossos (p)
	rural:	Kato Syme

Tool - metal

Prepalatial	settlement:	Chamaizi
		Myrtos
	cave:	Psychro ?
Protopalatial	settlement:	Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Karphi
	cave:	Psychro
Neopalatial I	settlement:	Knossos (b)
		Mallia (c) ?
		Mallia (l)
		Zakros (a)
	peak:	Juktas
	cave:	Psychro
		Skoteino
Neopalatial II	-	
Postpalatial	settlement:	Karphi (b)
		Karphi (c)
		Karphi (d)
		Karphi (e)
		Karphi (f)
		Karphi (g)
	cave:	Psychro

Tool - stone

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Phaistos (a)
	rural:	Archanes-Anemospilia
	peak:	Vrysinas
Neopalatial I	settlement	Knossos (b)
		Knossos (i)
		Mallia (d)
		Mallia (k)
		Mallia (l)
		Phaistos (c)
		Zakros (a)
	rural:	Kato Syme
	peak:	Juktas
	cave:	Arkalochori
Neopalatial II	-	
Postpalatial	settlement:	Karphi (a)
		Karphi (d)
		Karphi (f)
	rural:	Kato Syme

Tool - bone/ivory

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Phaistos (a)
		Phaistos (b)
	peak:	Juktas ?
		Karphi
Neopalatial I	settlement:	Knossos (h)
		Mallia (k)
	cave:	Skoteino
Neopalatial II	-	
Postpalatial	-	

Miniature vessel - clay and stone

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Mallia (a)
		Phaistos (b)
	peak:	Juktas
		Karphi
		Petsophas
		Vrysinas ?
Neopalatial I	settlement:	Knossos (d)
		Knossos (i)
		Mallia (i)
		Mallia (k)
		Mallia (l)
		Palaikastro (a)
	rural:	Kato Syme
	peak:	Juktas
	cave:	Arkalochori ?
		Chosto Nero ?
		Psychro
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (b)
		Kannia
	rural:	Kremasma

Blade - weapon

Prepalatial	-	
Protopalatial	rural:	Archanes-Anemospilia
	peak:	Juktas
		Karphi
		Modhi
		Vrysinas
Neopalatial I	settlement:	Mallia (d)
		Mallia (i)
		Phaistos (c)
	rural:	Kato Syme
	peak:	Juktas
		Kophinas
	cave:	Arkalochori
		Patsos ?
		Phaneromeni ?
		Psychro
		Skoteino
Neopalatial II	-	
Postpalatial	rural:	Kato Syme
	peak:	Juktas
	cave:	Phaneromeni
		Psychro
		Skoteino

Seal/sealing

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Juktas
	cave:	Psychro
Neopalatial I	settlement:	Knossos (b)
		Knossos (h)
		Knossos (i)
		Mallia (l)
		Pyrgos-Myrtos
		Zakros (a)
	peak:	Juktas
	cave:	Psychro
Neopalatial II	peak:	Juktas
	cave:	Psychro
Postpalatial	settlement:	Karphi (a)
	rural:	Kato Syme
	peak:	Juktas
	cave:	Psychro

Pinax - pictorial plaque

Prepalatial	-	
Protopalatial	peak:	Traostalos
Neopalatial I	settlement:	Knossos (b)
	cave:	Psychro
Neopalatial II	-	
Postpalatial	settlement:	Kannia

		Inscription
Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
		Phaistos (b)
	rural:	Archanes-Anemospilia
Neopalatial I	settlement:	Knossos (b)
		Mallia (l)
		Pyrgos-Myrtos
		Zakros (a)
	rural:	Kato Syme
	peak:	Juktas
		Petsophas
		Traostalos
		Vrysinas
	cave:	Arkalochori
		Psychro
Neopalatial II	-	
Postpalatial	-	

Marine object

Prepalatial	-	
Protopalatial	settlement:	Knossos (a)
		Mallia (a)
		Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Juktas
		Traostalos
		Vrysinas
Neopalatial I	settlement:	Knossos (b)
		Knossos (g)
		Knossos (i)
		Mallia (f)
		Mallia (h)
		Pyrgos-Myrtos
		Zakros (a)
	rural:	Kato Syme
	peak:	Juktas ?
	cave:	Skoteino ?
Neopalatial II	-	

Marine object (continued)

Postpalatial	settlement:	Haghia Triadha (b)
		Kannia
		Karphi (a)
		Karphi (e)
		Kephala Chondrou
		Knossos (m)

Jewellery etcetera

Prepalatial	settlement:	Myrtos
Protopalatial	settlement:	Mallia (b)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Juktas
		Karphi
		Petsophas
		Traostalos
Neopalatial I	settlement:	Knossos (b)
		Knossos (i)
		Mallia (d)
		Mallia (h)
		Mallia (j)
		Phaistos (c)
		Pyrgos-Myrtos
		Zakros (a)
	rural:	Kato Syme ?
	peak:	Juktas
		Kophinas
	cave:	Arkalochori
		Skoteino
Neopalatial II	settlement:	Knossos (k)

Postpalatial	settlement:	Haghia Triadha (b)
		Kannia
		Karphi (a)
		Karphi (b)
		Karphi (c)
		Karphi (e)
		Karphi (f)
		Karphi (g)
	cave:	Psychro

Animal figurine - clay[1]

Prepalatial	-	
Protopalatial	settlement:	Mallia (a)
	rural:	[Archanes-Anemospilia]
		Piskokephalo
	peak:	Juktas
		Karphi
		Maza
		Modhi
		Petsophas
		Traostalos
		Vrysinas
		Zou
	cave:	Kamares
Neopalatial I	settlement:	Mallia (d)
		Mallia (l)
	peak:	Juktas
		Kophinas
	cave:	Chosto Nero
		Psychro
Neopalatial II	-	

[1]Except snake, bird, beetle.

Postpalatial	settlement:	Haghia Triadha (c)
		Kannia
		Karphi (b)
		Karphi (e)
		Karphi (f)
		Karphi (g)
		Knossos (n)
	rural:	Kato Syme
		Kremasma
	peak:	Juktas
	cave:	Patsos
		Psychro

Animal figurine - other materials

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
	peak:	Juktas ?
Neopalatial I	settlement:	Knossos (b)
	rural:	Kato Syme
	peak:	Juktas ?
	cave:	Psychro
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
	rural:	Kato Syme
	cave:	Patsos

Model snake

Prepalatial	-	
Protopalatial	peak:	Juktas
Neopalatial I	settlement:	Knossos (b)
	peak:	Juktas ?
Neopalatial II	-	
Postpalatial	settlement:	Gournia
		Kannia
	cave:	Patsos ?

Model bird

Prepalatial	-	
Protopalatial	settlement:	Knossos (a)
	peak:	Juktas
		Petsophas
		Vrysinas
Neopalatial I	settlement:	Haghia Triada (a)
		Mallia (k)
	peak:	Juktas
	cave:	Psychro
Neopalatial II	-	
Postpalatial	settlement:	Gazi
		Gournia
		Haghia Triadha (c)
		Kannia
		Karphi (a)
		Knossos (m)
		Palaikastro (d)

Model beetle[2]

Prepalatial	-	
Protopalatial	rural:	Piskokephalo
	peak:	Juktas ?
		Traostalos
		Zou
Neopalatial I	settlement:	Mallia (k)
		Palaikastro (b)
Neopalatial II	-	
Postpalatial	-	

[2]Includes ones in the form of rhytons mentioned also in that category.

Model boat

Prepalatial	-	
Protopalatial	peak:	Traostalos
Neopalatial I	settlement:	Mallia (l)
	cave:	Patsos
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)

Model chariot

Prepalatial	-	
Protopalatial	-	
Neopalatial I	settlement:	Mallia (f)
	cave:	Psychro
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
		Karphi (f) (rhyton)

Model vegetation

Prepalatial	-	
Protopalatial	peak:	Juktas
		Petsophas
Neopalatial I	settlement:	Knossos (b)
		Zakros (a)
	peak:	Juktas ?
Neopalatial II	-	
Postpalatial	settlement:	Gazi (Cult object-anth.)

Model altar/shrine

Prepalatial	-	
Protopalatial	settlement:	Knossos (a)
	rural:	Piskokephalo
	peak:	Juktas
Neopalatial I	settlement:	Zakros (a)
	peak:	Juktas
		Petsophas
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
		Karphi (b)
		Karphi (g)

Organic remains (of offerings)

Prepalatial	-	
Protopalatial	settlement:	Phaistos (a)
		Phaistos (b)
	rural:	Archanes-Anemospilia
	peak:	Juktas
		Maza
		Vrysinas
Neopalatial I	settlement:	Knossos (b)
		Knossos (e)
		Knossos (f)
		Knossos (i)
		Phaistos (d)
	rural:	Kato Syme
		Rousses
	peak:	Juktas
	cave:	Psychro
		Skoteino
Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
		Kannia
		Knossos (p)
		Palaikastro (e)

Organic remains (of offerings) (continued)

Postpalatial (continued)	rural:	Kato Syme
	cave:	Psychro
		Skoteino

Human figure - clay

Prepalatial	settlement:	Chamaizi
	peak:	Petsophas
Protopalatial	settlement:	Mallia (b)
		Phaistos (b)
	rural:	Piskokephalo
	peak:	Juktas
		Karphi
		Maza
		Modhi
		Petsophas
		Traostalos
		Vrysinas
		Zou
	cave:	Psychro ?
Neopalatial I	settlement:	Haghia Triadha (a)
		Mallia (I)
		Phaistos (d)
	rural:	Kato Syme
	peak:	Juktas
		Kophinas
	cave:	Chosto Nero
		Psychro

Neopalatial II	-	
Postpalatial	settlement:	Haghia Triadha (c)
		Kannia
		Karphi (d)
		Karphi (e)
		Karphi (f) (rhyton)
		Kephala Chondrou
		Knossos (m)
		Palaikastro (d)
		Palaikastro (e)
	rural:	Kato Syme
	cave:	Patsos
		Psychro

Human figure - stone/ivory

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
Neopalatial I	settlement:	Knossos (h)
		Mallia (k)
Neopalatial II	-	
Postpalatial	-	

Human part

Prepalatial	-	
Protopalatial	settlement:	Mallia (b)
	peak:	Juktas
		Karphi
		Maza
		Petsophas
		Traostalos
		Vrysinas
		Zou
Neopalatial I	settlement:	Mallia (h)
		Pyrgos-Myrtos
Neopalatial II	-	
Postpalatial	settlement:	Kannia
	rural:	Kremasma
	cave:	Patsos

Cult object - aniconic

Prepalatial	-	
Protopalatial	-	
Neopalatial I	settlement:	Palaikastro (c) ?
Neopalatial II	-	
Postpalatial	settlement:	Gazi
		Knossos (n)
	cave:	Amnisos ?

Abbreviations

and

Bibliography

LIST OF ABBREVIATIONS

A Periodicals and series

AA	*Archäologischer Anzeiger*
AJA	*Athens Annals of Archaeology*
Anat.St	*Anatolian Studies*
Arch.Eph	Ἀρχαιολογικὴ Ἐφημερίς
ASAtene	*Annuario della R.Scuola Archeologica di Atene*
Ath.Mitt	*Mitteilungen des deutschen Archäologischen Instituts, Athenische Abteilung*
BCH	*Bulletin de correspondance hellénique*
BdA	*Bollettino d'Arte*
BICS	*Bulletin of the Institute of Classical Studies of the University of London*
BSA	*Annual of the British School at Athens*
Deltion	Ἀρχαιολογικον Δελτίον
Ergon	Τὸ Ἔργον της Ἀρχαιολογικῆς Ἑταιρείας
JHS	*Journal of Hellenic Studies*
Kr.Chron	κρητικὰ Χρονικά
Mem.Ist.Lomb	*Memorie della R.Istituto Lombardo di scienze e lettere*
Mon.Ant	*Monumenti Antichi*
PdP	*La Parola del Passato*
Praktika	Πρακτικὰ τῆς Ἀκαδημίας Ἀθηνῶν Ἀρχαιολογικῆς Ἑταιρείας
Rend.Linc	*Rendiconti della R.Accademia dei Lincei*
SIMA	*Studies in Mediterranean Archaeology*
SME	*Studi Micenei ed Egeo-Anatolico*

B Books

L'Iconographie minoenne	Darcque,P. and Poursat,J.-C,. 1985 *L'Iconographie minoenne, BCH* Supplément XI
Minoan Society	Krzyszkowska, O. and Nixon, L. 1981, *Minoan Society.* Proceedings of the Cambridge Colloquium
Sanc.Symp	Hägg,R and Marinatos,N. 1981, *Sanctuaries and Cults in the Aegean Bronze Age.* Proceedings of the First International Symposium at the Swedish Institute, Athens.

BIBLIOGRAPHY

Alexiou,S. 1950, "Πρωτογεωμετρικὸς ναΐσκος τῆς Συλλογῆς Γιαμαλάκη" *Kr.Chron.* 441-462.

Alexiou,S. 1955, "Ἀνασκαφὴ Κατσαμπᾶ Κρήτης." *Praktika* 311-314.

Alexiou,S. 1956, "Χρονικά." *Kr.Chron* 10, 405-424.

Alexiou,S. 1957, "Ἀνασκαφὴ Μητροπόλεως Γόρτυνος." *Praktika* 148-149.

Alexiou,S. 1958, "Ἡ μινωϊκὴ θεὰ μεθ' ὑψωμένων χειρῶν." *Kr.Chron* 12, 179-299.

Alexiou,S. 1959, "Νεὰ παράστασις λατρειας επι μινωϊκου αναγλύφου αγγειου." *Kr.Chron* 13, 346-352.

Alexiou,S. 1963a, "Χρονικά, Κρήτης." *Deltion* 18, 310-316.

Alexiou,S. 1963b, "Χρονικά." *Kr.Chron* 17, 382-412.

Alexiou,S. 1964, "Χρονικά, Κρήτης." *Deltion* 19, 437.

Alexiou,S. 1967, "Contribution to the study of the Minoan sacred knot." In *Europa: Studien zur Geschichte und Epigraphik der frühen Aegaeis. Festschrift für Ernst Grumach.* Edited by William C. Brice.

Alexiou,S. 1968, "Περί τὸ προβλημα τῆς ὑστερᾶς χρήσεως τοῦ χώρου τῶν μινωϊκων ἀνακτόρων." In Πεπραγμένα τοῦ Β' Διεθνους Κρητολογικοῦ Συνεδριου. 105-114.

Alexiou,S. 1969, *Minoan Civilization*

Alexiou,S. 1972, "Περὶ τῶν μινωϊκῶν δεξαμενῶν καθαρμοῦ." *Kr.Chron* 24, 414-434.

Alexiou,S. 1973, "Sulla funzione di alcuni ambienti ne palazzi Minoici." *Antichita Cretesi - Studi in onore di 'Doro Levi* vol I. 60-64.

Alexiou,S. 1976, "Προανακτορικες 'Ακροπολεις τῆς Κρήτης." In Πεπραγμενα τοῦ Δ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου, 9-22.

Alexiou,S. 1979, "Τεῖχη και ἀκρόπολεις στη μινωϊκη Κρήτη (ὁ μυθος τῆς μινωϊκης εἰρηνης)." *Kretologia* 8, 41-56.

Amouretti, Marie-Claire. 1970, *Fouilles exécutées à Mallia. Le Centre Politique II. La Crypte Hypostyle (1957-1962).* Etudes creétoises 18.

Banti,L. 1930-31, "La grande tomba a tholos di Haghia Triada." *ASAtene* 13-14, 155-251.

Banti,L. 1939, In "Relazione preliminare sui lavori della Missione Archeologica Italiana in Creta nell'anno 1939" Paribeni,R; Guarducci,M; Banti,L. and Colini,A.M. *Le Arti* 2, 265-266.

Banti,L. 1941-43, "I culti minoici e greci di Haghia Triada (Creta)." *ASAtene* 3-5 N.S. 9-74.

Banti,L. 1941, 'Divinita femminili in Creta nel Tardo Minoico III' *Studi e Materiali di Storia delle Religioni*, 17, 17-36.
Baurain, Claude. 1985, "Pour une autre interprétation des génies minoens." In *L'Iconographie minoenne*, 96-118.
Baurain, Claude, and Darcque, Pascal. 1983, "Un triton en pierre à Malia." *BCH* 107, 3-73.
Béquignon,Y. 1929, "Chronique des fouilles..." *BCH* 53, 491-534.
Bequignon,Y. 1931 "Chronique des fouilles..." *BCH* 55, 450-522.
Betancourt,P.P. 1985, *The History of Minoan Pottery.*
Betancourt,P.P., and Weinstein, Gail A. 1976, "Carbon-14 and the beginning of the Late Bronze Age in Crete." *AJA* 80, 329-348.
Binford, Lewis R. (ed.) 1977, *For Theory Building in Archaeology.*
Boardman,J. 1958, "Unpublished Linear A inscriptions from Oxford." *BICS* 5, 11-12.
Boardman,J. 1961, *The Cretan Collection in Oxford.*
Boardman,J. 1963, "The Date of the Knossos Tablets." *On the Knossos Tablets.*
Borda,M. 1946, *Arte Cretese - micenea nel Museo Pigorini di Roma.*
Bosanquet,R.C. 1901-02, "Excavations at Palaikastro I." *BSA* 8, 286-316.
Bosanquet,R.C., and Dawkins,R.M. 1902-03, "Excavations at Palaikastro II." *BSA* 9, 274-328.
Bosanquet,R.C., and Dawkins,R.M. 1923, *The Unpublished Objects from the Palaikastro Excavations 1902-1906. Part I.* *BSA* Supplementary Paper No.1.
Boufides,N.K. 1953-1954, "Κρητομυκηναϊκαι επιγραφαι εξ Αρκαλοχορι Κρήτης." *Arch.Eph*, 61-74.
Branigan,K. 1969, "The genesis of the household goddess." *SMEA* 8. *Incunabula Graeca* 38.
Branigan,K. 1970a, "Minoan foot amulets and their Near Eastern counterparts." *SMEA* II. *Incunabula Graeca* 44.
Branigan,K. 1970b, *The Tombs of Mesara: A Study of Funerary Architecture and Ritual in Southern Crete. 2800-1700 B.C.*
Branigan,K. 1973, "Radio-Carbon and the Absolute Chronology of the Aegean Bronze Age." *Kr.Chron* 25, 352-74.
Brice,W.C. 1961, *Inscriptions in the Minoan Linear Script of Class A.*
Buchholz, Hans-Günter. 1959, *Zur Herkunft der Kretischen Doppelaxt: Geschichte und auswärtige Beziehungen eines minoischen Kultsymbols.*
Cadogan, Gerald. 1973, "Clay Tubes in Minoan Religion." Πεπραγμένα τοῦ Γ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου.
Cadogan, Gerald. 1976, "Minoan Pyrgos." Πεπραγμένα τοῦ Δ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου.
Cadogan, Gerald. 1978, "Pyrgos, Crete, 1970-77." *Archaeological Reports for 1977-78*, 70-84.
Carratelli, Giovanni Pugliese. 1957, "Sulle epigrafe in Lineare A di carattere sacrale." *Minos* 5, 163-173.
Catling,H.W. 1971-72, "Archaeology in Greece." *Arch.Reps*, 3-26.
Catling,H.W. 1974-75, "Archaeology in Greece." *Arch.Reps*, 3-28.
Catling,H.W. 1977-78, "Archaeology in Greece." *Arch.Reps*, 3-69.

Catling,H.W. 1986, "Archaeology in Greece 1985-86." *Arch.Reps,* 88-89.
Chadwick,John. 1976, *The MycenaeanWorld.*
Chapouthier, Fernand. 1928, "Une table à offrandes au palais de Mallia." *BCH* 52, 292-323.
Chapouthier,F. 1941, "La vaiselle commune et la vie de tous les jours a l'époque minoenne." *Revue des études Anciennes* 43, 5-15.
Chapouthier,F., and Charbonneaux,J. 1928, *Fouilles exécu tées à Mallia. Premier rapport (1922-1924).* études crétoises 1.
Chapouthier,F., and Demargne,P. 1942, *Fouilles exécutées à Mallia. Troisième rapport. Exploration du palais. (1927, 1929, 1931, 1932).* études crétoises 6.
Chapouthier,F., P.Demargne, and A.Dessene. 1962, *Fouilles exécutées à Mallia. Quatrième rapport. Exploration du palais. (1929-1935 et 1946-1960).* études crétoises 12.
Chapouthier, Fernand and Joly, René. 1922, "Chronique des fouilles et découvertes archéologiques dans l'orient hellénique." *BCH* 46, 477-556.
Chapouthier,F. and Joly,R. 1936, *Fouil.les exécutées a Mallia. Deuxième rapport. Exploration due palais (1925-1926).* études crétoises 4.
Charbonneaux,J. "La religion egéenne préhellenique." *Histoire général des religions.*
Charbonneaux,J. 1925, "Trois armes d'apparat du palais de Mallia (Crete)." *Monumnets Piots* 28, 1-18.
Cook, Arthur Bernard. 1914-1940, *Zeus: A Study in Ancient Religion.*
Cook,J.M. 1946, "Archaeology in Greece 1945-1947." *JHS* 66, 108-121.
Daux,G. 1957, "Chronique des fouilles..." *BCH* 81, 496-636.
Daux,G. 1958, "Chronique des fouilles..." *BCH* 82, 644-830.
Daux,G. 1963, "Chronique des fouilles..." *BCH* 87, 689-878.
Daux,G. 1966, "Chronique des fouilles..." *BCH* 90, 715-1019.
Daux,G. 1967, "Chronique des fouilles..." *BCH* 91, 623-889.
Daux,G. 1968, "Chronique des fouilles..." *BCH* 92, 711-1136.
Davaras,C. 1965, "Mitteilungen." *Kadmos* 4, 173.
Davaras,C. 1966, "Mitteilungen." *Kadmos* 5, 168.
Davaras,C. 1967 "Zur herkunft des Diskos von Phaistos." *Kadmos* 6, 101-105.
Davaras,C. 1969, "Trois bronzes minoens de Skoteino." *BCH* 93, 620-650.
Davaras,C. 1972a, "The Oval House at Chamaizi Reconsidered." *AAA* 5, 283-288.
Davaras,C. 1972b, "Two New Linear A Inscriptions on Libation Vessels from Petsophas." *Kadmos* 11, 101-112.
Davaras,C. 1972c, "Χρονικά (κρήτη)." *Deltion* 27, 645-654.
Davaras,C. 1973a, "Νέαι Ἔρευναι εἰς τὴν ἐλλειψοειδῆ οἰκιαν Χαμαιζίου." Πεπραγμενα τοῦ Γ' Διεθνοῦς Κρητολογικοῦ Συνεδριού Ι.
Davaras,C. 1973b, "Χρονικά (κρήτη)." *Deltion* 28, 583-584.

Davaras,C. 1974a, "Ἀνασκαφη ΜΜ ἱερου κορυφης Βργσινα, Ρέθυμνης." *AAA* 7, 210-213..
Davaras,C. 1974b, "Mitteilungen." *Kadmos* 13, 167.
Davaras,C. 1976a "Σύνθετα ἱερὰ κέρατα ἀπο τὸ ἱερὸ κορυφῆς του Πετσοφᾶ." Πεπραγμενα τοῦ Δ' Διεθνους Κρητολογικοῦ Συνεδρίου. (Pub 1980).
Davaras,C. 1976b, *Guide to Cretan Antiquities.*
Davaras,C. 1978, "Χρονικα. (Κρήτη)." *Deltion* 33, 385-395.
Davaras,C. 1980, "A Minoan Graffito from Traostalos." *Kadmos* 19, 87-92.
Davaras,C. 1981, "Three New Linear A Libation Vessel Fragments from Petsophas." *Kadmos* 20, 1-6.
Davaras,C. n.d. *Hagios Nikolaos Museum.*
Davaras,C., and Brice, W.C. 1977, "A Fragment of a Libation Table Inscribed in Linear A from Vrysinas." *Kadmos* 16, 5-6.
Dawkins,R.M. 1903-04, "Excavations at Palaikastro III." *BSA* 10, 192-231.
Dawkins,R.M., and Laistner,M.L.W. 1912-13, "The Excavation of the Kamares Cave in Crete." *BSA* 19, 1034.
Demargne,P. 1902, "Antiquités de Praesos et de l'Antre Dictéen." *BCH* 26, 580-83
Demargne,P. 1932, "Culte funéraire et foyer domestique dans la Crète minoenne." *BCH* 56, 60-68.
Demargne,P. 1945, *Fouilles exécutées à Mallia. Exploration des nécropoles (1921-1933), premier fascicule.* Etudes crétoises 7.
Demargne,P and Gallet de Santerre,H. 1953, *Fouilles exécutées à Mallia. Exploration des maisons et quartiers d'habitation (1921-48), premier fascicule.* Études crétoises 9.
Desborough,V.R. d'A. 1952, *Protogeometric Pottery.*
Desborough,V.R. d'A. 1964, *The Last Mycenaeans and Their Successors: An Archaeological Survey c.1200-1000 B.C.*
Deshayes,J. 1952, "Chronique des fouilles..." *BCH* 76, 201-288.
Deshayes,J. and Dessenne,A. 1959, *Fouilles exécutées à Mallia. Exploration des maisons et quartiers d'habitation (1948-1954), deuxième fascicule.* Études crétoises 11.
Dessenae,A. 1949, "Têtes minoennes." *BCH* 63, 307-315.
Diamant, Steven, and Rutter, Jeremy. 1969, "Horned Objects in Anatolia and the Near East and Possible Connexions with the Minoan Horns of Consecration." *Anat.St.* 19, 147-177.
Dietrich,B.C. 1967, "Some Light from the East on Cretan Cult Practice." *Historia* 16, 385-413.
Dietrich,B.C. 1968, "Prolegomena to the Study of Greek Cult Continuity." *Acta Classica* 11, 153-181.
Dietrich,B.C. 1969, "Peak Cults and their Place in Minoan Religion." *Historia* 18, 257-275.
Dietrich,B.C. 1974, *The Origins of Greek Religion.*
Detournay,B., Poursat, J.-C., and Vandanabeele,F. 1980, *Fouilles exécutées à Mallia. Le Quartier Mu II.* Études crétoises 26.
Doumas,C. (ed.) 1978-80, *Thera and the Aegean World.*
Doumas,C. 1983, *Thera.*
Dunbabin,D.J. 1947, "Antiquities of Amari." *BSA* 42, 187-190.

Dussaud,R. 1914, *Les civilisations préhelléniques dans le basin de la mer Égée.*
Effenterre,H.van. 1955, "Cupules et naumachie." *BCH* 79, 541-548.
Effenterre,H.van. 1980, *Le palais de Mallia et la cité minoenne.* 2 vols. Incunabula Graeca 76.
Effenterre,H.van, and Effenterre,M.van. 1969, *Fouilles exécutées à Mallia. Le Centre politique I: L'Agora (1956-1960).* études crétoises 17.
Effenterre,H.van, and Effenterre,M.van. 1976, *Fouilles exécutées à Mallia: Exploration des maisons et quartiers d'habitation (1956-1960), quat'rième fascicule.* études crétoises 22.
Evans,A.J. 1897, "Further Discoveries of Cretan and Aegean Script; with Libyan and proto-egyptian comparisons." *JHS* 17, 327-358.
Evans,A.J. 1899-1900, "Knossos: I. The Palace." *BSA* 6, 3-69.
Evans,A.J. 1900-1901, "The Palace of Knossos." *BSA* 7, 1-20.
Evans,A.J. 1901, "Mycenaean Tree and Pillar Cult and its Mediterranean Relations." *JHS* 21, 99-204.
Evans,A.J. 1901-1902, "The Palace of Knossos." *BSA* 8, 1-124.
Evans,A.J. 1902-1903, "The Palace of Knossos." *BSA* 9, 1-153.
Evans,A.J. 1903-1904, "The Palace of Knossos." *BSA* 10, 1-62.
Evans,A.J. 1904-1905, "The Palace of Knossos and its Dependencies." *BSA* 11, 1-26.
Evans,A.J. 1911, "Restored Shrine on the Central Court of the Palace of Knossos." *The Architectural Journal* 18, 289-295.
Evans,A.J. 1913-1914, "The 'Tomb of the Double Axes' and Associated Group, and the Pillar Rooms and Ritual Vessels of the 'Little Palace' at Knossos." *Archaeologia* 65, 1-94.
Evans,A.J. 1921-1935, *The Palace of Minos at Knossos.*
Evans,A.J. 1931, "The Earlier Religion of Greece in the Light of Cretan Discoveries." Frazer lecture.
Faure,P. 1956, "Grottes Crétoises." *BCH* 80, 95-103.
Faure,P. 1958, "Spéléologie at topographie Crétoise." *BCH* 82, 495-515.
Faure,P. 1958a, "Le Mont Iouktas, tombeau de Zeus." *Minoica. Festschrift zum 80 Geburstag von Johannes Sundwall. E. Grumach.*
Faure,P. 1958b, "Spéléologie Crétoise et l'humanisme." Bulletin de l'Association Guillaume Budé 3, 27-50.
Faure,P. 1960, "Recherches de spéléologie et de topographie Crétoises." *BCH* 84, 189-220.
Faure,P. 1962, "Cavernes et sites aux deux extrémités de la Crète." *BCH* 86, 36-56.
Faure,P. 1963a, "Cultes de sommets et cultes de cavernes en Crète." *BCH* 87, 493-508.
Faure,P. 1963b, "A la recherche du vrai labyrinthe de Crète." *Kr.Chron.*, 315-326.
Faure,P. 1964, *Fonctions des cavernes Crétoises.*
Faure,P. 1965, "Recherches sur le peuplement des montagnes de Crète: sites, cavernes et cultes." *BCH* 89, 27-63.
Faure,P. 1967, "Nouvelles recherches sur trois sortes de sanctuaires Crétois." *BCH* 91, 114-150.

Faure,P. 1969, "Sur trois sortes de sanctuaires crétois." *BCH* 93, 174-213.
Faure,P. 1972, "Cultes populaires dans la Crète antique." *BCH* 96, 389-426.
Faure,P. 1978, "Chronique de cavernes crétois." *BCH* 102, 629-640.
Fiandra,E. 1961-1962, "I periodi struttivi del primo Palazzo di Festòs." *Kr.Chron.* 15-16, 112-126.
Forsdyke,J. 1952, "Minos of Crete." *Journal of the Warburg and Courtauld Institutes* 15, 13-19.
Forsdyke,J. 1954, "The 'Harvester' Vase of Haghia Triada." *Journal of the Warburg and Courtauld Institutes* 17, 1-9.
Forster,E.S. 1901-1902, "Praesos: The Terracottas." *BSA* 8, 271-281.
Fraser,P.M. 1970-1971, "Archaeology in Greece, 1970-71." *Arch.Reps.*, 3-32.
Furumark,A. 1965, "Gods of ancient Crete." *Opuscula Atheniensia* 6, 85-98.
Gallet de Santerre,H. 1949, "Grand rhyton de pierre trouvé à Mallia." *BCH* 73, 1-18.
Georgiou,H.S. 1973a, "Minoan 'Fireboxes' from Gournia." *Expedition* 15, no.4, 7-14.
Georgiou,H.S. 1973b, "Aromatics in Antiquity and in Minoan Crete. A Review and Reassessment." *Kr.Chron.* 25, 441-456.
Georgiou,H.S. 1979, "Late Minoan Incense Burners." *AJA* 83, 427-435.
Georgiou,H.S. 1980, "Minoan Fireboxes: A Study of Form and Function." *SMEA* 21.
Gérard,M. 1967, "La Grotte d'Eileithya à Amnisos." *SMEA* 3, Incunabula Graeca 21, 31-33.
Gérard-Rousseau,M. 1968, "Les mentions religieuses dans les tablette myceniennes." Incunabula Graeca 29.
Gesell,G.C. 1976, "The Minoan Snake Tube: A Survey and Catalogue." *AJA* 80, 247-259.
Gesell,G.C. 1981, "The Place of the Goddess in Minoan Society." *Minoan Society.*
Gesell,G.C. 1985, *Town, Palace and House Cult in Minoan Crete.* *SIMA* 67.
Gill,M.A.V. 1965, "The Knossos Sealings: Provenance and Identification." *BSA* 60, 58-98.
Glotz,G. 1923, *La civilisation égéene.*
Graham,J.W. 1963, Review of études Crétois 12 in *Gnomon* 35, 610-612.
Graham,J.W. 1969, *The Palaces of Crete.*
Graham,J.W. 1977, "Bathrooms and Lustral Chambers." *Greece and the Eastern Mediterranean in Ancient History and Prehistory: Studies Presented to Fritz Schachermeyr on the Occasion of his 80th Birthday.* Ed. K.H. Kinzl.
Guarducci,M. 1939-1940, "Missione Archeologica Italiana in Creta." *ASAtene* 1-2 N.S. 231ff.
Guarducci,M. 1941, "Contributi alla topografia della Creta orientale." *Revista di Filologia* N.S. 19, 99-107.

Guthrie,W.K.C. 1959, "Early Greek Religion in the Light of the Decipherment of Linear B." *BICS* 6, 35-46.
Hägg,R. 1982, "Epiphany in Minoan Ritual." *BICS*, 1982.
Hägg,R., and Marinatos,N. 1981, Sanctuaries and Cults in the Aegean Bronze Age. Proceedings of the 1st International Symposium at the Swedish Institute, Athens.
Halbherr,F. 1888, "Scoperte nel santuario di Hermes Cranaeo." *Museo Italiano di Antichita Classica* 2, 913-916.
Halbherr,F. 1894, *The Antiquary* 28, 13-14 and 110-112.
Halbherr,F. 1902, "Lavori eseguiti dalla Missione archeologica italiana ad Haghia Triada e nella Necropoli di Phaestos dal 15 maggio al 12 giugno 1902." *Rend.Linc.* 11, 5th Ser. 433-447.
Halbherr,F. 1903, "Resti dell'Eta Micenea scoperti ad Haghia Triada presso Phaestos." *Mon.Ant.* 13, 5-74.
Halbherr,F. 1904, "Scavi della missione Italiana a Phaestos (1902-1905). Rapporti preliminare. *Mon.Ant.* 14, 331-488.
Halbherr,F. 1905a, "Scavi eseguiti dalla Missione archeologica italiana ad Haghia Triada ed a Festo nell'anno 1904." *MemIstLomb.* 21, 235-254.
Halbherr,F. 1905b, "Lavori eseguiti dalla Missione archeologica italiana in Creta." *Rend.Linc.* 14, 365-405.
Halbherr,F. and Orsi,P. 1888, "Scoperte nell'antro di Psychro,." *Museo Italiano di Antichita Classica* 2, 905-912.
Halbherr,F., Stefani,E., and Banti,L. 1977, "Haghia Triada nel periodo tardo palaziale." *ASAtene* 39 N.S. 1-342.
Hallager,E. 1977, *The Mycenaean Palace at Knossos: Evidence for Final Destruction in the IIIB Period.*
Hallager,E. 1985, *The Master Impression.* SIMA 69.
Hallager,E. and Vlasakis,M. 1984, "Two New Roundels with Linear A from Khania." *Kadmos* 23, 1-10.
Hankey,V. 1980, "Stone Vessels at Myrtos Pyrgos." Πεπραγμένα τοῦ Δ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου I.
Hankey,V. and Warren,P. 1974, "The Absolute Chronology of the Aegean Late Bronze Age." *BICS* 21, 142-160.
Harper,W.M. 1982, *Statistics.*
Hawes,H.B. *et al.* 1908, *Gournia, Vasiliki, and Other Prehistoric Sites on the Isthmus of Hierapetra, Crete.*
Hazzidakis,J. 1887, "Ειλειθγιας Σπελαιον ἐν Κρήτη." *Parnassos* 10, 339-342.
Hazzidakis,J. 1912-1913, "An Early Minoan Sacred Cave at Arkalochori in Crete." *BSA* 19, 35-47.
Hazzidakis,J. 1934, *Les villas minoennes de Tylissos.* Études crétoises 3.
Hirsch,E.S. 1977, *Painted Decoration on the Floors of Bronze Age Structures on Crete and the Greek Mainland.* SIMA 53..
Hirsch,E.S. 1980, "Another Look at Minoan and Mycenaean Interrelationships in Floor Decoration." *AJA* 84, 453-462.
Hogarth,D.G. 1899-1900, "The Dictaean Cave." *BSA* 6, 94-116.
Hogarth,D.G. and Welch,F.B. 1901, "Primitive Painted Pottery in Crete." *JHS* 21, 93f.
Hood,M.S.F. 1955, "Archaeology in Greece 1955." *Arch.Reps.* 29.

Hood,M.S.F. 1956, "Archaeology in Greece 1956." *Arch.Reps.* 22.
Hood,M.S.F. 1957, "Archaeology in Greece 1957." *Arch.Reps.* 3-25.
Hood,M.S.F. 1958, "Archaeology in Greece 1958." *Arch.Reps.* 17-19.
Hood,M.S.F. 1959-60, "Archaeology in Greece, 1959-60." *Arch.Reps.* 20.
Hood,M.S.F. 1960-1961, "Archaeology in Greece 1960-61." *Arch.Reps.* 26-27.
Hood,M.S.F. 1961-1962, "Archaeology in Greece 1961-62." *Arch.Reps.* 3-31.
Hood,M.S.F. 1962, "Sir Arthur Evans Vindicated: A Remarkable Discovery of Late Minoan IB Vases from beside the Royal Road at Knossos." *Illustrated London News* Feb.17, 259-261.
Hood,M.S.F. 1967, "The Last Palace at Knossos and the Date of its Destruction." SMEA 12. Incunabula Graeca 18.
Hood,M.S.F. 1977, "Minoan Town-Shrines?" *Greece and the Eastern Mediterranean in Ancient History and Prehistory: Studies Presented to Fritz Schachermeyr on the Occasion of his 80th Birthday.* Ed. K.H. Kinzl.
Hood,M.S.F. 1978, *The Arts in Prehistoric Greece.*
Hood,M.S.F., Warren,P., and Cadogan,G. 1964, "Travels in Crete, 1962." *BSA* 59, 50-99.
Hood,M.S.F. and Warren,P.M. 1966, "Ancient Sites in the Province of Ayios Vasilios, Crete." *BSA* 61, 185.
Hooker,J.T. 1973, "A Note on the Linear A Tablet from Pirgos." *Kadmos* 12, 93-94.
Hooker,J.T. 1981, "Minoan Religion in the Late Palace Period." *Minoan Society.*
Hutchinson,R.W. 1962, *Prehistoric Crete.*
Hutchinson,R.W., Eccles, E. and Benton,S. 1939-1940, "Unpublished Objects from Palaikastro and Praesos II." *BSA* 40, 38-59.
Kantor, Helene J. 1965, "the Relative Chronology of Egypt and its Foreign Correlations before the Late Bronze Age." *Chronologies in Old World Archaeology.*
Karetsou,A. 1974, "Το ἱερὸ κορυφῆς Γιούχτα." *Praktika,* 228-239.
Karetsou,A. 1975a, "Το ἱερό κορυφῆς Γιούχτα." *Praktika,* 330-342.
Karetsou,A. 1975b, "Ἱερόν κορυφῆς Γιούχτα." *Ergon,* 176-178.
Karetsou,A. 1976a, "Το ἱερό κορυφῆς Γιούχτα." *Praktika,* 408-418.
Karetsou,A. 1976b, "Ἱερον κορυφῆς Γιούχτα." *Ergon,* 184-188.
Karetsou,A. 1977a, "Το ἱερό κορυφῆς Γιούχτα." *Praktika,* 419-420.
Karetsou,A. 1977b, "Ἱερον κορυφῆς Γιούχτα." *Ergon,* 181-185.
Karetsou,A. 1978a, "Το ἱερό κορυφης Γιούχτα." ." *Praktika,* 232-258.
Karetsou,A. 1978b, "Ἱερον κορυφης Γιούχτα." *Ergon,* 62.
Karetsou,A. 1979a, "Το ἱερό κορυφης Γιούχτα." *Praktika,* 280-281.
Karetsou,A. 1979b, "Γιούχτα." *Ergon* 29-30.
Karetsou,A. 1980a, "Το ἱερό κορυφῆς του Γιούχτα." *Ergon,* 338-353.
Karetsou,A. 1980b, "Ἱερον κορυφῆς Γιουχτα." *Ergon,* 46-48.

Karetsou,A. 1981a, "Το ιερό κορυφῆς του Γιούχτα." *Praktika*, 405-408.
Karetsou,A. 1981b, "Ἱερον κορυφῆς Γιούχτα." *Ergon*, 69-70.
Karetsou,A. 1981c, "The Peak Sanctuary of Mount Juktas." *Sanc.Symp.*
Karetsou,A. 1984, "Ἱερον κορυφῆς Γιούχτα." *Ergon*, 111-115.
Karetsou,A. 1985, " " " " ." *Ergon*, 83-87.
Karo,G. 1932, "Archäologische Funde von Sommer 1931 bis Mai 1932: Kreta." *AA*, 174-179.
Kenna,V.E.G. 1960, *Cretan Seals.*
Kiechle,F.K. 1970, "Gotterdarstelling durch menschen in der Altmediterranean Religionem." *Historia* 19, 259-271.
Koehl,R.B. 1981, "The Functions of Aegean Bronze Age Rhyta." *Sanc.Symp.*
Koehl,R.B. 1986, "The Chieftain Cup and a Minoan Rite of Passage." *JHS* 106, 99-110.
Lembessi,A. 1972, "Ἱερὸν Ἑρμοῦ καὶ Ἀφροδίτης εἰς Σύμην Κρήτης." *Praktika* 193-203.
Lembessi,A. 1973a, "Ἱερὸν Ἑρμοῦ καὶ Ἀφροδίτης εἰς Σύμην Κρητης." *Praktika* 188-199.
Lembessi,A. 1973b, "Σύμη Βιάννου." *Ergon* 118-123
Lembessi,A. 1973c, "Ἱερὸν Ἑρμοῦ καί Ἀφροδίτης παρα τὴν Κάτω Σύμην Βιάννου." *AAA* 6, 104-114.
Lembessi,A. 1974, "Ἱερὸν Ἑρμοῦ καὶ Ἀφροδίτης εἰς Σύμη Βιάννου." *Praktika* 222-227.
Lembessi,A. 1975a, "Ἱερὸν Ἑρμοῦ καὶ Ἀφροδίτης εἰς Σύμη Βιάννου." *Praktika* 321-329.
Lembessi,A. 1975b, "Σύμη Βιάννου." *Ergon* 171-175.
Lembessi,A. 1975-1976, "A Sanctuary of Hermes and Aphrodite in Crete." *Expedition* 18, no.3, 2-13.
Lembessi,A. 1976a, "Ἱερὸ Ἑρμῆ καὶ Ἀφροδίτης στη Σύμη Βιάννου." *Praktika* 400-407.
Lembessi,A. 1976b, "Ἱερὸν Σύμης Βιάννου." *Ergon* 179-184.
Lembessi,A. 1977a, "Τὸ Ἱερὸ τοῦ Ἑρμη καὶ τῆς Αφροδίτης στὴ Συμη Βιάννου." *Praktika* 403-418.
Lembessi,A. 1977b, "Ἱερο Σύμης Βιάννου." *Ergon* 175-181.
Lembessi,A. 1981a, "Ἱερὸ Ἑρμη καὶ τῆς Ἀφροδίτης στὴ Συμη Βιάννου." *Praktika* 380-395.
Lembessi,A. 1981c, "Ἡ συνέχεια τῆς κρητομυκηναϊκης λατρειας." *Arch.Eph.* 1-23.
Lembessi,A. 1981b, "Ἱερο Σύμης Βιάννου." *Ergon* 68-69
Lembessi,A. 1983, " " " ." *Ergon* 86-89.
Lembessi,A. 1984, "Ἱερὸ τοῦ Ἑρμη καί τῆς Ἀφροδίτης στὴ Σύμη τῆς Βιάννου." *Ergon* 97-102.
Lembessi,A. 1985, "Ἱερό τοῦ Ἑρμῆ καὶ τῆς Ἀφροδίτης στὴ Σύμη Βιάννου." *Ergon* 72-76.
Lembessi,A. 1986, "Ἱερο τοῦ Ἑρμῆ καὶ τῆς Αφροδίτης στὴ Συμη Βιάννου." *Ergon* 138-139.
Lemerle,P. 1937, "Chronique des fouilles..." *BCH* 61, 441-476.
Levi,D. 1927-1929, "Arkades." *ASAtene* 10-12, 15-710.
Levi,D. 1952-1954, "La campagna di scavi a Festòs nel 1953." *ASAtene* 14-16 N.S. 389-459.

Levi,D. 1957-1958, "Gli scavi a Festòs nel 1956 e 1957." *ASAtene* 19-20 N.S. 193-361.
Levi,D. 1959, "La Villa Rurale Minoica di Gortina." *BdA* 44, 237-265.
Levi,D. 1957-1958, "L'archivo di cretule a Festòs." *ASAtene* 19-20 N.S. 7-192.
Levi,D. 1959, "Immagini di culto Minoiche." *PdP* 14, 377ff.
Levi,D. 1960, "Country Life in Minoan Crete: Stores and Shrines in a Rich Farm-House. Excavations at Gortyna - Part 2." *Illustrated London News*, Jan.2. 16-18.
Levi,D. 1961-1962, "La tomba a tholos di Kamilari presso a Festòs." *ASAtene* 23-24 N.S., 7-148.
Levi,D. 1964, *The Recent Excavations at Phaistos.* SIMA 11.
Levi,D. 1976, *Festòs e la civilta minoica.* Incunabula Graeca 60.
Levi,D. 1978, "Testi e monumenti - carraterri e continuita del culto cretese sulle vette montane." *PdP* 33, 294-314.
Long,C.R. 1974, *The Ayia Triadha Sarcophagus: A Study of Late Minoan and Mycenaean Funerary Practices and Beliefs.* SIMA 41
MacKenzie,D. 1907-1908, "Cretan Palaces and the Aegean Civilization IV. The Elliptical House at Chamaizi and the Cretan Palaces." *BSA* 14, 414-422.
Mariani,L. 1896, "Antichita Cretesi." *Mon.Ant.* 6, 333-342.
Marinatos,N. 1983, "The West House at Akrotiri as a Cult Center." *Ath.Mitt.*, 98, 1-19.
Marinatos,N. 1984a, *Art and Religion in Thera.*
Marinatos,N. 1984b, "Minoan Threisokracy on Thera." *The Minoan Thalassocracy - Myth and Reality.* Proceedings of the 3rd International Symposium at the Swedish Institute in Athens. Ed. by R.Hägg and N.Marinatos.
Marinatos,N. 1986, *Minoan Sacrificial Ritual, Cult Practice and Symbolism.*
Marinatos,N. and Hägg,R. 1981, "Anthropomorphic Cult Images in Crete?" *Minoan Society.*
Marinatos,S. 1929, "Τὸ Σπεος Εἰλειθυιής." *Praktika*, 95-104.
Marinatos,S. 1930, "Ἀνασκαφαὶ ἐν Κρήτη 1930." *Praktika*, 91-99.
Marinatos,S. 1932a, "Ἀνασκαφὴ Ἀμνισσοῦ Κρήτη." *Praktika*, 76-94.
Marinatos,S. 1930, "Archäologischen Funde. Griechenland." *AA*, 156-157.
Marinatos,S. 1931, "Archäologischen Kreta." *AA*, 296-297.
Marinatos,S. 1933, "La marine Créto-Mycenienne." *BCH* 57, 170-235.
Marinatos,S. 1934a, "Ausgraben und Funde auf Kreta, 1933-34." *AA*, 252-254.
Marinatos,S. 1934b, "Scavi nella grotta di Arkalochori." *Revista di Filologica* 12 N.S. 547-549.
Marinatos,S. 1935a, "Ἀνασκαφαι ἐν Κρήτη. Αρκαλοχορι." *Praktika*, 212-220.
Marinatos,S. 1935b, "Ausgraben und Funde auf Kreta. 1934-1935." *AA*, 239-259.
Marinatos,S. 1936, "Le temple géométrique de Dréros." *BCH* 60, 214-256.

Marinatos,S. 1937a, "Αἱ μινωϊκαὶ θεαὶ τοῦ Γάζι." *Arch.Eph.*, 278-291.
Marinatos,S. 1937b, "Ausgraben und Funder auf Kreta." *AA*, 221-224.
Marinatos,S. 1941, "The Cult of Cretan Caves." *The Review of Religion*, 5. 129-136.
Marinatos,S. 1950, "Τὸ Σπήλαιον τῆς Λυκάστου." *Praktika*, 250.
Marinatos,S. 1962, "Zur Frage der Grotte von Arkalochori." *Kadmos* 1, 87-94.
Marinatos,S. and Hirmer,M. 1960, *Crete and Mycenae.*
Marry,J. 1973, *History, Society and Religion in the Minoan - Mycenaean Era.*
Matt,L.von, *et al.* 1968, *Ancient Crete.*
Matz,F. 1958, *Göttererscheinung und Kultbild im minoischen Kreta.*
Mavriyannaki,C. 1979, "Double Axe - tool with Bucranium from Amari." *AAA* 11, 198-208.
Megaw,A.H.S. 1962-1963, "Archaeology in Greece 1962-63." *Archaeological Reports*, 3-34.
Megaw,A.H.S. 1963-1964, "Archaeology in Greece, 1963-64." *Archaeological Reports*, 3-30.
Megaw,A.H.S. 1964-1965, "Archaeology in Greece, 1964-65." *Archaeological Reports*, 3-31.
Mercando,L. 1974-1975, "Lampade, Lucerne, bracieri di Festòs. (Scavi 1950-1970)." *ASAtene*, 36-37 N.S., 15-168.
Metaxa-Muhly,P. 1984a, "Minoan Hearths." *AJA* 88, 107-122.
Metaxa-Muhly,P. 1984b, "Linear A inscriptions from the Sanctuary of Hermes and Aphrodite at Kato Syme." *Kadmos* 23, 124-135.
Milani,L.A. 1905, "L'arte e la religione praellenica alla luce dei bronzo dell'antro Ideo cretese e dei monumenti hetei." *Studi e Material:* 3, 1-142.
Mollard-Besques,S. 1966, "Un bronze minoen au Musée-Hotel Sandelin de Saint-Omer." *Réveue Archéologique*, 223-244.
Morgan,L. 1985, "Idea, idiom and iconography." *L'Iconographie minoenne.*
Morpurgo-Davies,A., and Cadogan,G. 1971, "A Linear A Tablet from Pirgos, Mirtos, Crete." *Kadmos* 10, 105-109.
Morpurgo-Davies,A., and Cadogan,G. 1977, "A Second Linear A Tablet from Pyrgos." *Kadmos* 16, 7-9.
Mountjoy,P.A. 1985, "Ritual Associations for LMIB Marine Style Vases." *L'Iconographice Minoenne.*
Myres,J.L. 1902-1903, "Excavations at Palaikastro II. The Sanctuary-site at Petsofa." *BSA* 9, 356-387.
Naumann,U. 1976, *Subminoische und Protogeometrische Bronzeplastik auf Kreta. Ath.Mitt.* Beiheft 6.
Negbi,O. 1980, "A Canaanite Figurine in Late Minoan Crete." Πεπραγμενα τοῦ Δ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου.
Nicholls,R.V. 1970, "Greek Votive Statuettes and Religious Continuity. c. 1200-700 B.C." *Auckland Classical Essays. Presented to E.M.Blaiklock.* Ed. B.F.Harrison.
Nilsson,M.P. 1950, *The Minoan-Mycenaean Religion and its Survival in Greek Religion.* 2nd rev. ed.

Overbeck,J.C. and McDonald,C.K. 1976, "The Date of the Last Palace at Knossos." *AJA* 80, 155-164.
Palmer,L.R. 1963, "The Find-Places of the Knossos Tablets." *On the Knossos Tablets.*
Paribeni,R. 1903, "Lavori eseguiti dalla Missione archeologica italiana nel palazzo e nella necropoli di Haghia Triada..." *Rend.Linc.* 12, 317-351.
Paribeni,R. 1904-1905, "Ricerchenel sepolcreto di Haghia Triada presso Phaestos." *Mon.Ant.* 14, 677-756.
Peatfield,A.A.D. 1983, "The Topography of Minoan Peak Sanctuaries." *BSA* 78, 273-279.
Pelon,O. 1966, "Maison d'Haghia varvara et architecture à Mallia." *BCH* 90, 552-585.
Pelon,O. 1967, "La Maison E de Mallia reconsiderée." *BCH* 91, 494-512.
Pelon,O. 1970, *Fouilles exécutées à Mallia. Exploration des maisons et quartiers d'habitation (1963-66), troisiéme fascicule.* études crétoises 16.
Pelon,O. with Andersen,E., and Oliver,J-P. 1980a, *Le palais de Malia V.* études crétoises 25.
Pelon,O. 1980b, "Aspects de la vie religieuese minoenne à la lumiére des récherches récentes au palais de Mallia (Crète)." *Comptes rendus de l'academie des inscriptions...* 658-670.
Pelon,O. 1982, "Le palais de Mallia et les jeux de taureaux." *Rayonnement Grec. Homages à Charles Delroye.* Ed. Hadermann-Misguich,L and Raepsaet,G.
Pendlebury,J.D.S. 1939, *The Archaeology of Crete: An Introduction.*
Pendlebury,J.D.S. and Money-Coutts,M.B. 1935-36, "Excavations in the Plain of Lasithi. I. The Cave of Trapeza." *BSA* 36, 5-131.
Pendlebury,J.D.S. and Money-Coutts,M.B. and Eccles,E. 1932-1933, "Journeys in Crete." *BSA* 33, 80-100.
Pendlebury,J.D.S., Pendlebury,H.W. and Money-Coutts,M.B. 1937-1938. "Excavations in the Plain of Lasithi. III. Karphi." *BSA* 38, 57-100.
Pernier,L. 1900, "Lavori eseguiti a Festos dalla Missione archeologica italiana... 1900." *Rend.Linc.* 9, 631-636.
Pernier,L. 1901, "Lavori eseguiti a Festos dalla Missione archeologica italiana...1901." *Rend.Linc.* 10, 260-284.
Pernier,L. 1902, "Scavi della Missione Italiana a Phaestos 1900-1901. Rapporto preliminare." *Mon.Ant.* 12, 5-142.
Pernier,L. 1904, "Scavi della Missione italiana a Phaestos 1902-1903. Rapporto preliminare." *Mon.Ant.* 14, 313-499.
Pernier,L. 1906, "Scavi e scoperte: Creta." *Ausonia* 1, 109-120.
Pernier,L. 1907, "Lavori eseguiti dalla Missione archeologica italiana in Creta..." *Rend.Linc.* 16, 257-303.
Pernier,L. 1908, "Di una città ellenica arcaica scoperta a Creta dalla Missione Italiana." *BdA* 2, 441-462.
Pernier,L., and Banti,L. 1951, *Il Palazzo minoica di Festòs.* vol.II.
Pernier,L. 1935, *Il Palazzo minoico di Festòs.* vol.I.

Persson,A.W. 1942, *The Religion of Greece in Prehistoric Times.* Sather Classical Lectures 17.
Persson,A.W. 1943, *New Tombs at Dendra, near Midea.*
Picard,C. 1948, *Les réligions préhelléniques (Crétes et Mycénes).*
Pini,I. 1972, "Weitere Bemerkungen zu den minoischen Fussamuletten." *SMEA*, 179-187.
Platakis,E.K. 1965, "Το σπελαιον της Ειλειθυίας." Κρητικη Πρωτοχρονια 5, 198-226.
Platon,N. 1930, "Περι της ἐν κρήτης λατρειας του σταλακτιτου." *Arch.Eph*, 160-168.
Platon,N. 1948, "Nouvelle interprétation des idoles-cloches du minoen-moyen I." *Rev.Arch.* 31-32, 833-846.
Platon,N. 1947, "Χρονικά." *Kr.Chron.* 1, 639.
Platon,N. 1951, "Το Ἱερὸν Μαξα καὶ τὰ μινωϊκὰ Ἱερα Κορυφης" *Kr.Chron.* 5, 96-160.
Platon,N. 1952a, "Ἀνασκαφὴ περιοχης Σητειας." *Praktika*, 631-636.
Platon,N. 1952b, "Χρονικά." *Kr.Chron.* 6, 471-480.
Platon,N. 1954, "Τὰ μινωϊκὰ οἰκιακὰ ἱερα." *Kr.Chron.* 8, 428-483.
Platon,N. 1956, "Ἀνασκαφὴ Χόνδρυ Βιάννου." *Praktika*, 136-143.
Platon,N. 1957, "Ανασκαφη Χόνδρυ Βιάννου." *Praktika*, 136-147, 201-204.
Platon,N. 1958, "Inscribed Libation Vessel from a Minoan House at Prassa, Herakleion." *Minoica: Festschift zum 80. Geburstag von Johannes Sundwall.* Ed. E.Grumach.
Platon,N. 1959, "Ἀνασκαφὴ μεσομινωϊκοῦ οἰκίσκου-ἱερου εἰς Ρουσσες Χόνδρυ." *Praktika*, 207-209.
Platon,N. 1963, "Ἀνασκαφαὶ Ζάκρου." *Praktika*, 160-188.
Platon,N. 1964, " " " ." *Praktika*, 142-168.
Platon,N. 1965, " " " ." *Praktika*, 187-224.
Platon,N. 1966, " " " ." *Praktika*, 139-173.
Platon,N. 1967, "Bathrooms and Lustral Basins in Minoan Dwellings." *Europa: Studien zur Geschichte und Epigraphik der frühen Aegieis. Festschrift fur Ernst Grumach.* Ed. W.C.Brice.
Platon,N. 1968, "Τα προβληματα Χρονολογήσεως τῶν μινωϊκων ανακτόρων." *Arch.Eph.*, 1-58.
Platon,N. 1971, *Zakros: The Discovery of a Lost Palace of Ancient Crete.*
Platon,N. 1973, "La chronologie des réceptacles de trésors du sanctuaire - the "Temple Repositories" - et des autres dépôts du palai de Cnossos." Πεπραγμένα τοῦ Γ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου I.
Platon,N. 1981a, "Ἀνασκαφὴ Ζάκρου." *Praktika*, 366.
Platon,N. 1981b, "The Minoan Palaces: Centres of Organisation of a Theocratic, Social and Political System." *Minoan Society.*
Platon,N., and Davaras,C. 1961-1962, "Χρονικά, Κρήτη." *Deltion*, 281-291.
Pope,M. 1956, "Cretan Axe Heads with Linear A inscriptions." *BSA* 51, 132-135.

Popham,M.R. 1964, *The Last Days of the Palace at Knossos: Complete Vases of the Late Minoan IIIB Period.* SIMA 5.
Popham,M.R. 1970a, *The Destruction of the Palace at Knossos: Pottery of the Late Minoan IIIA Period.* SIMA 12.
Popham,M.R. 1970b, "A Late Minoan Shrine at Knossos." *AAA* 3, 93-94.
Popham,M.R. 1970c "A Late Minoan Shrine at Knossos." *BSA* 65, 191-194.
Popham,M.R. 1970d, "Late Minoan Chronology." *AJA* 74, 226-228.
Poursat,J.-C. 1966, "Un sanctuaire du Minoen moyen II à Mallia." *BCH* 90, 514-551.
Poursat,J.-C. 1972, "Les fouilles récentes de Mallia et la civilisation des premiers palais crétois." *Comples Rendus,* 178-186.
Poursat,J.-C. 1973, "Découvertes récentes à Mallia. Le Quartier Mu (1966-1971)." Πεπραγμένα τοῦ Γ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου I.
Poursat,J.-C. 1975, "Fouilles récentes à Mallia (Crète): l'art palatial minoen à l'époque de Camares." *Gazette des Beaux-Arts,* Oct. 89-98.
Poursat,J.-C. 1978, Fouilles exécutées à Mallia. Le Quartier Mu I. *études crétoises* 23.
Poursat,J.-C. 1981, "Ateliers et sanctuaires à Malia: nouvelles donées sur l'organisation sociale à ''époque des premiers palais." *Minoan Society.*
Powell,B.P. 1977, "The Significance of the so-called 'Horns of Consecration.'" *Kadmos* 16, 70-82.
Press,L. 1968, "Mountain Cult Circles in the Aegean Iconography." *Atti e Memorie dell'Congresso Internazionale di Micenologia.* Incunabula Graeca 25.
Renfrew,C. 1972, *The Emergence of Civilistion.*
Renfrew,C. 1981a, "The Sanctuary at Phylakopi." *Sanc.Symp.*
Renfrew,C. 1981b, "Questions of Minoan and Mycenaean Cult." *Sanc.Symp.*
Renfrew,C. 1985, *The Archaeology of Cult. The Sanctuary at Phylakopi.*
Renfrew,C. and Sterud,G. 1969, "Close Proximity Analysis: A Rapid Method for the Ordering of Archaeological Materials." *American Antiquity* 34, 265-277.
Reusch,H. 1958, "Zum Wandschmuck des Thronsaales in Knossos." Minoica: Festschrift zum 80. Geburtstag von Johannes Sundwall. Ed. E.Grumach.
Reusch,H. 1961, "Zum Problem des Thronraumes in Knossos." *Minoica und Homer: eine Augsatz-sammlung.* Ed. Georgiev,V. and Irmscher,J.
Robertson,M. 1939, "Archaeology in Greece, 1938-39." *JHS* 59, 189-209.
Rosa,V.la, 1977, "La ripresa dei lavori and Haghia Triada: relazione preliminare sui saggi del 1977." *ASAtene* N.S. 39, 297-342.
Rosa,V.la. 1979-1980, "Haghia Triada II: Relazione preliminare sui

saggi del 1978 e 1979." *ASAtene* 62-63, 49-164.
Rosa,V.la. 1984, "Haghia Triada." In: *Cretan Antica* 161-201.
Russell,P. 1979, "The Date of the Gournia Shrine." *Temple University Aegean Symposium* 4, 27-33.
Rutkowski,B. 1968, "The Decline of the Minoan Peak Sanctuaries." *Atti e Memorie del I'Congresso Internazionale di Micenologia.* Incunabula Graeca 25.
Rutkowski,B. 1973, "Temple and Cult Statue in the Aegean World." Πεπραγμένα τοῦ Γ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου I.
Rutkowski,B. 1979, "Religious Architecture in Cyprus and in Crete in the Late Bronze Age." Acts of the International Archaeological Symposium - the Relations between Cyprus and Crete *circa* 2000-500 B.C.
Rutkowski,B. 1981, *Frügriechische Kultdarstellungen. Ath.Mitt.* Beiheft 8.
Rutkowski,B. 1986, *The Cult Places of the Aegean.*
Rutkowski,B. 1984, "Der Baumkult in der Ägäis." *Visible Religion (Annual for Religious Iconography.)* 3, 159-171.
Ruud,I.-M. 1980, *Minoan Religion - A Bibliography.*
Sackett,L.H. 1963a, "Excavations in Palaikastro." *Deltion* 18, 321.
Sackett,L.H. 1963b, "New Excavation at a Minoan Site, Neglected for over 50 Years: Discoveries at Palaikastro in Eastern Crete." *Illustrated London News,* Apr.27, 620-623.
Sackett,L.H., and Popham,M.R. 1970, "Excavations at Palaikastro VII." *BSA* 65, 203-242.
Sackett,L.H., Popham,M.R., and Warren,P.M. 1965, "Excavations at Palaikastro VI." *BSA* 60, 248-315.
Sakellarakis,I.A. 1965, "Χρονικά, Κρήτη." *Deltion* 20 B'3, 557-567.
Sakellarakis,I.A. 1966a, "'Ανασκαφη 'Αρχανῶν." *Praktika,* 411-419.
Sakellarakis,I.A. 1966b, "The First Untouched Royal Burial Found in Crete." *Illustrated London News.* March 26, 32-33.
Sakellarakis,I.A. 1968, "Παρατηρησεις έπι τής σημειωθεισης εἰς 'Αρχανας ΥΜΙΙΙ θυσιας ταυρων" Πεπραγμένα του Β' Διεθνοῦς Κρητολογικοῦ Συνεδρίου.
Sakellarakis,I.A. 1970, "Das Kuppelgrab A von Archanes und das Kretisch-mykenische Tieropferritual." *PZ* 45, 135-219.
Sakellarakis,I.A. 1983, *Ergon,* 89-92.
Sakellarakis,I.A. 1985, *Ergon,* 78.
Sakellarakis,I.A. and Sakellarakis,E. 1979, "Ἀνασκαφὴ 'Αρχανῶν ." *Praktika,* 331-392.
Sakellarakis,I.A. and Sapouna-Sakellarakis,E. 1981, "Drama of Death in a Minoan Temple." *National Geographic* 159, no.2. 205-222.
Schachermeyr,F. 1938, "Vorbericht über eine Expedition nach Ostkreta." *AA,* 466-480.
Schachermeyr,F. 1964, *Die minoische Kultur des Alten Kreta.*
Schweitzer,B. 1928, Review of M.P. Nilsson's "The Minoan-Mycenaean Religion." *Gnomon* 4, 169-193.
Seager,R.B. 1910, *Excavations on the Island of Pseira, Crete.*

Seager,R.B. 1912, *Excavations on the Island of Mochlos.*
Seiradaki,Mercy. 1960. "Pottery from Karphi." *BSA* 55, 1-37.
Shaw,J.W. 1977, "Excavations at Kommos (Crete) during 1976." *Hesperia* 46, 199-240.
Shaw,J.W. 1978, "Evidence for the Minoan Tripartite Shrine." *AJA* 82, 429-448.
Shaw,J.W. 1981, "New Evidence for the Minoan Tripartite Shrine." Πεπραγμενα τοῦ Δ' Διεθνοῦς Κρητολογικοῦ Συνεδρίου.
Shaw,J.W., Betancourt,P., and Watrous,L.V. 1978, "Excavations at Kommos (Crete) during 1977." *Hesperia* 47, 111-170.
Souvinou-Inwood,C. 1973, "On the 'Lost' Boat Ring from Mochlos." *Kadmos* 12, 149-158.
Stürmer,V. 1985, "Schnabelkannen: eine Studie zur darstellenden kunst in der minoisch-mykenischen kultur." *L'Iconographie minoenne.*
Taramelli,A. 1899, "Ricerche archeologiche Cretesi." *Mon.Ant.* 9, 356-412.
Taramelli,A. 1901, "A Visit to the Grotto of Camares on Mount Ida." *AJA* 5, 437-451.
Tiré,C., and Effenterre,H.van. 1978, *Guide des fouilles françaises en Crète.*
Toutain,J. 1903, "Bulletin archéologique de la religion Grecque, pt VIII, Crete." *Révue de l'histoire des religions* 48, 343-357.
Toutain,J. 1911, "L'antre de Psychro et le Δικταιον Αντρον." *Revue de l'histoire des religions* 64, 277-291.
Treuil,R. 1971, "Les auges double de Malia." *BCH* 95, 13-42.
Tyree,L. 1974, *Cretan Sacred Caves: Archaeological Evidence.*
Tzedakis,I. 1967, "A Minoan 'Goddess' Idol from Sakhtouria." *BSA* 62. 203-205.
Vermeule,E.T. 1959, "A Gold Minoan Double Axe." Bulletin of the Museum of Fine Arts, Boston, 67, 4-16.
Ventris,M. and Chadwick,J. 1973, *Documents in Mycenaean Greek.*
Warren,P.M. 1966, "A Stone Receptacle from the Cave of Hermes Kranaios at Patsos." *BSA* 61, 195-196.
Warren,P.M. 1969, *Minoan Stone Vases.*
Warren,P.M. 1972, *Myrtos - An Early Bronze Age Settlement in Crete.*
Warren,P.M. 1973, "The Beginnings of Minoan Religion." *Antichita cretesi: Studi in onore di Doro Levi.*
Warren,P.M. 1976, "Radiocarbon Dating and Calibration and the Absolute Chronology of Late Neolithic and Early Minoan Crete." SMEA 17, Incunabula Graeca 63.
Warren,P.M. 1980, "Problems of Chronology in Crete and the Aegean in the Third and Earlier Second Millennium B.C." *AJA* 84, 487-499.
Warren,P.M. 1981a, "Knossos: Stratigraphical Museum Excavations, 1978-1980. Part I." *Archaeological Reports for 1980-81,* 73-93.
Warren,P.M. 1981b, "Minoan Crete and Ecstatic Religion. Preliminary Observations on the 1979 Excavations at Knossos." *Sanc.Symp.*

Warren,P.M. 1984, "Circular Platforms at Minoan Knossos." *BSA* 79, 307-323.
Wide,S. 1901, "Mykenische Götterbilderr und Idole." *Ath.Mitt.* 26, 247-257.
Xanthoudides,S. 1905-1906, "Cretan Kernoi." *BSA* 12, 9-23.
Xanthoudides,S. 1906 , "Προιστορικα οἰκια εἰς Χαμαιζι, Σητειας." Arch. Eph. 117-156.
Xanthoudides,S. 1909, "Μινωϊκου σκεῦος ενεπιγραφον." *Arch.Eph.*, 179-196.
Xanthoudides,S. 1922, "Μινωϊκον μεγαρον Νίρου." *Arch.Eph.* 1-25.
Xanthoudides,S. 1924, *The Vaulted Tombs of Mesara: An Account of Some Early Cemeteries of Southern Crete.*
Yavis,C.G. 1949, *Greek Altars.*
Young,G.M. 1937, "Archaeology in Greece, 1936-37." *JHS* 67, 121-145.
Young,W.J. 1959, "Technical Examination of a Minoan Gold Double Axe." *Bulletin of the Museum of Fine Arts, Boston*, 67. 17-20.
Younger,J.G. 1977, "Non-sphragistic uses of Minoan-Mycenaean Sealstones and Rings." *Kadmos* 16, 141-159.
Zervos,C. 1956, *L'Art de la Crète néolithique et minoenne.*

TABLE I 1: PRE-PALATIAL SITES

	Chamaizi	Myrtos	Juktas	Petsophas	Psychro
Altar-bench		x			
Altar-mason.					
Bench/ledge		x			
Dais/platf.					
Niche/comp.					
Bonfire					
Hearth	x				
Sac.ditch					
Vat/channel					
Pillar/base					
Temenos			?	?	
Horns of con.					
Altar-port.					
Tripod	x				
Fruitstand					
Rectang. tr.					
Kernos-clay					
Kernos-stone					
Single cup.					
Off.tab:misc					
Rhyton					
Tub. vessel					
Chalice					
Libation jug					
Ladle					
Incense burn		x			
Pottery-cup		x	x		
" bowl		x			
" jug		x			
" stor	x	x			
" misc		x	x		?
Stone-cup					
" bowl					
" jug					
" misc					
Metal vessel					
Lamp					
Tool-metal	x	x			?
" stone		x			
" bone		x			
Double axe					
Mini. h.ofc.					
Mini. vessel		x			
Blade-weapon					
Seal/sealing					x
Pinax					
Inscription					
Marine					
Jewel./dec.		x			
Animal-clay					
" other					
Snake					
Bird					
Beetle					
Boat					
Chariot					
Vegetation					
Altar/shrine					
Organic rem.					
Human-clay	x			x	
" metal					
" other					
Human part					
Cult figure		x			
Aniconic					
	5	14	2 (3)	1 (2)	1 (3)

TABLE I.2. PROTO-PALATIAL SITES

	Knossos (a)	Mallia (a)	" (b)	Phaistos (a)	" (b)	Archanes An.	Piskokephalo	Juktas	Karphi	Kophinas	Maza	Modhi	Petsophas	Traostalos	Vrysinas	Zou	Amnisos	Kamares	Psychro	Skoteino
Altar-bench						x														
Altar-mason						x														
Bench/ledge		x		x	x	x														
Dais/platf.																				
Niche/comp.				x	x	x														
Bonfire							x	x			x	x	x	x	x	x				?
Hearth																				
Sac.ditch				x				x												
Vat/channel				x		x														
Pillar/base																				
Temenos						x	?	?					?				?			
Horns of con						x														
Altar-port.																				
Tripod																				
Fruitstand		x		x	x													x		
Rectang.tray		x		x																
Kernos-clay											x									
Kernos-stone								x												
Single cup.			x	x	x	x		x						?						
Off.tab:misc		x				x														
Rhyton					x	x								x	x	x				
Tub.vessel		x																		
Chalice						x														
Libation jug																				
Ladle																				
Incense burn					x	x									x			x		
Pottery-cup		x		x	x	x	x	x					x		x		x	x		
" bowl		x		x	x	x		x										x		
" jug		x		x	x	x		x					x					x		
" stor		x		x	x	x	x	x							x	x		x		
" misc	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	?	x		x
Stone-cup			x		x															
" bowl			x	x		x														
" jug			x	x																
" misc		x		x																
Metal vessel			x																	
Lamp		x		x	x	x														
Tool-metal				x	x	x			x										x	
" stone				x		x									x					
" bone				x	x			?	x											
Double axe		x						x							x					
Mini.h.of c.	x	x					x							x	x					
Mini.vessel		x			x			x	x				x		?					
Blade-weapon						x		x	x			x			x					
Seal/sealing			x	x	x	x		x											x	
Pinax														x						
Inscription			x		x	x														
Marine	x	x		x	x	x		x						x	x					
Jewl./dec.			x		x	x		x	x				x	x						
Animal-clay		x					x	x	x		x	x	x	x	x	x		x		
Animal-other			x					?												
Snake								?												
Bird	x							x					x		x					
Beetle							x	?						x		x				
Boat														x						
Chariot																				
Vegetation								x					x							
Altar/shrine	x						x	x												
Organic rem.				x	x	x		x			x				x			x		
Human-clay			x		x		x	x	x		x	x	x	x	x	x			x	
" metal								x					x	x	x					
" other			x																	
Human part			x					x	x		x		x	x	x	x				
Cult figure						x														
Aniconic																				
	5	17	13	22	22	28	9 (10)	23 (28)	9	1	6	5	12 (13)	13 (14)	17 (18)	8	1 (3)	9	3	1 (2)

TABLE I 3: NEO-PALATIAL I SITES

	Hag.Tria.(a)	Knossos (b)	" (c)	" (d)	" (e)	" (f)	" (g)	" (h)	" (i)	Mallia (c)	" (d)	" (e)	" (f)	" (g)	" (h)	" (i)	" (j)	" (k)	" (l)	Palaikas.(a)	" (b)	" (c)	Phaistos (c)	" (d)	Pyrgos-Myrt.	Zakros (a)	" (b)	Kato Syme	Rousses	Juktas	Kophinas	Petsophas	Traostalos	Vrysinas	Amnisos	Arkalochori	Chosto Nero	Patsos	Phaneromeni	Psychro	Skoteino
Altar-bench																							?		?																
Altar-mason													x					x											x						x				x	x	
Bench/ledge									x		x	x		x	x								x		x		x		x	x	x									
Dais/platf.																											x													
Niche/comp.											x					x									x															
Bonfire		?																x									x	x	x	x	x								x	x
Hearth									?																															
Sac.ditch										x							x												x										
Vat/channel																									x		x													
Pillar/base						x						x																x												
Temenos																											x		?	x	x	x	x					x		
Horns of con								x																				x	x											
Altar-port.															x																									
Tripod			x	x													x									x														
Fruitstand																											x												x	
Rectang.tray																																								
Kernos-clay																											x													x
Kernos-stone														x								?					x		x											
Single cup.	x				x	x										x	x	x					x				x	x	x	x	x	x	x			x	x	x		
Off.tab:misc																		x				x		x			x													
Rhyton								x	x			x									x		x			x			x	x										
Tub.vessel			x																					x			x													
Chalice									x																	x	x													
Libation jug																										x														
Ladle																								x					x											
Incense burn			x										x		x											x	x													
Pottery-cup						x	x		x								x	x	x	x			x	x		x	x	x	x	x									x	x
" bowl		x	x						x				x				x		x						x	x				x	x								x	
" jug	x								x								x		x				x	x	x	x	x		x	x	x									
" stor			x						x	x		x				x			x					x		x			x	x										?	
" misc	x	x	x						x	x	x		x		x		x	x	x	x			x	x		x	x	x		x	x		x		x	x	x	x	x	x	x
Stone-cup																			x									x		x										
" bowl		x										x				x								x		x	x													
" jug	x																									x														
" misc	x	x																								x														
Metal vessel																										x														
Lamp															x		x	x	x					x		x		x	x		x									x	
Tool-metal	x									?									x							x				x									x	x
" stone	x								x		x							x	x							x		x												
" bone								x										x																							
Double axe												x											x		x	x	x												x	x
Mini.h.of c.																		x				x	x	x		x			x										x	
Mini.vessel			x						x							x		x	x	x								x											x	
Blade-weapon											x					x								x				x											x	x
Seal/sealing	x							x	x									x								x	x		x										x	
Pinax	x																																						x	
Inscription	x																	x								x		x											x	
Marine	x						x		x				x	x												x	x													?	
Jewel./dec.	x								x	x				x		x		x					x			x	x													x	
Animal-clay											x																		x	x											
Animal-other	x																									x			?										x	
Snake	x																												?											
Bird	x																	x											x										x	
Beetle																		x					x																	
Boat																			x																					
Chariot													x																										x	
Vegetation		x																							x				?											
Altar/shrine																									x				x	x										
Organic rem.		x			x	x			x									x										x	x										x	x
Human-clay	x																	x									x	x										x	
" metal																											x		x	x									x	x
" other								x										x									x		x	x											
Human part															x										x															
Cult figure		x																																						
Aniconic																						?																		
	2	17	4	7	2	3	3	8	14	2	7	3	7	2	9	4	8	15	13	6	4	2	9	12	9	26	5	28	9	30	15	7	4	3	1	7	3	3	2	24	11
		(18)							(15)	(3)												(4)		(13)		(27)				(35)						(2)	(10)	(4)	(4)	(3)		(14)

TABLE I 4: NEO-PALATIAL II SITES

	Knossos (j)	" (k)	" (l)	Kato Syme	Juktas	Amnisos	Arkalochori	Chosto Nero	Patsos	Phaneromeni	Psychro	Skoteino
Altar-bench		?										
Altar-mason.												
Bench/ledge	x	x	x		x							
Dais/platf.			?									
Niche/comp.		x										
Bonfire												
Hearth	x											
Sac.ditch												
Vat/channel	x		x									
Pillar/base	x											
Temenos				?	x						?	
Horns of con												
Altar-port.			x									
Tripod												
Fruitstand												
Rectang.tr.												
Kernos-clay												
Kernos-stone												
Single cup.	x											
Off.tab:misc												
Rhyton	x	x										
Tub.vessel												
Chalice												
Libation jug												
Ladle												
Incense burn												
Pottery-cup					x							
" bowl												
" jug												
" stor		x										
" misc			x	x	x							
Stone-cup												
" bowl												
" jug												
" misc												
Metal vessel												
Lamp		x										
Tool-metal												
" stone												
" bone												
Double axe	x		x									
Mini.h.of c.												
Mini.vessel												
Blade-weapon												
Seal/sealing					x						x	
Pinax												
Inscription												
Marine												
Jewel./dec.		x										
Animal-clay												
Animal-other												
Snake												
Bird												
Beetle												
Boat												
Chariot												
Vegetation												
Altar/shrine												
Organic rem.												
Human-clay												
" metal												
" other												
Human part												
Cult figure												
Aniconic												
	7	6	5	1	5						1	
		(7)	(6)	(2)							(2)	

TABLE I 5:POST-PALATIAL SITES

	Gazi	Gournia	Hag.Tria.(b)	" (c)	Kannia	Karphi (a)	" (b)	" (c)	" (d)	" (e)	" (f)	" (g)	Katsambas	Keph. Chond.	Knossos (m)	" (n)	" (o)	" (p)	Palaikas.(d)	Palaikas.(e)	Kato Syme	Kremasma	Juktas	Amnisos	Arkalochori	Patsos	Phaneromeni	Psychro	Skoteino
Altar-bench			x		x	x	?				?		x		x	x													
Altar-mason.				x		x																							
Bench/ledge	x							x				x						x					x						
Dais/platf.												x			x														
Niche/comp.						x							x					x											
Bonfire																					x		x					x	x
Hearth					x																								
Sac.ditch				x																									
Vat/channel																		?											
Pillar/base																												x	
Temenos																					?		x	?					
Horns of con				x											x	x	x											x	
Altar-port.																													
Tripod		x													x														
Fruitstand					x																								
Rectang.tr.	x																												
Kernos-clay				x															x										
Kernos-stone																													
Single cup.					x																								
Off.tab:misc					x									x															
Rhyton											x			x														x	
Tub.vessel	x	x	x		x			x	x	x			x	x															
Chalice																													
Libation jug																													
Ladle																							x						
Incense burn	x				x								x				x	x	x					?				?	
Pottery-cup	x		x		x					x	x	x	x	x					x		x		x		?			x	
" bowl	x		x		x			x			x			x			x	x	x				x					x	
" jug							x				x			x					x				x						?
" stor	x	x			x			x		x	x	x		x				x	x				x					x	
" misc				x	x	x	x	x	x	x	x	x	x					x		x	x		x	x	x	x	x	x	x
Stone-cup																													
" bowl					x				x			x																	
" jug																													
" misc																													
Metal vessel																													
Lamp		x								x				x							x								
Tool-metal							x	x	x	x	x	x																x	
" stone						x			x		x										x								
" bone																													
Double axe		x		x							x			x							x							x	
Mini.h.of c.	x	x		x	x	x	x														?								
Mini.vessel			x		x																	x							
Blade-weapon																					x		x					x	x
Seal/sealing						x															x		x					x	
Pinax					x																								
Inscription																													
Marine			x		x	x					x			x	x														
Jewel./dec.			x		x	x	x	x			x	x	x															x	
Animal-clay				x	x		x				x	x	x			x					x	x	x					x	x
Animal-other				x																	x								
Snake		x			x																								
Bird	x	x		x	x	x									x				x										
Beetle																													
Boat				x																									
Chariot				x								x																	
Vegetation	x																											x	x
Altar/shrine				x		x							x															x	
Organic rem.				x	x													x		x	x							x	x
Human-clay				x	x				x	x	x			x	x					x	x								
" metal				x																									
" other																													
Human part					x																								
Cult figure	x	x			x	x			x	x				x				x											
Aniconic	?												x										x						
	10	9	8	16	24	11	7	7	7	9	12	12	6	7	13	4	2	9	6	7	13	3	12	?	1	1	7	4	15	4
	(11)						(8)				(13)							(10)			(15)				(4)	(2)	(8)		(16)	(5)

TABLE II: SIMILARITY COEFFICIENTS

Max. no. categ.s	1. Pre-palatial.	Chamaizi	Myrtos		Juktas	Petsophas		Psychro
5	Chamaizi	/	2		1	–		1
14	Myrtos	/			2	1		1
				/				
3	Juktas				/	1		1
2	Petsophas					/		1
							/	
3	Psychro							/

II	2. Proto-palatial.	Knossos (a)	Mallia (a)	Mallia (b)	Phaistos (a)	Phaistos (b)		Archanes	Piskokephalo		Juktas	Karphi	Kophinas	Maza	Modhi	Petsophas	Traostalos	Vrysinas	Zou		Amnisos	Kamares	Psychro	Skoteino
5	Knossos (a)	/	3	1	2	2		2	3		1	1	1	1	1	2	3	4	1		1	1	1	1
17	Mallia (a)		/	1	11	10		9	5		9	3	1	1	2	5	4	4	3		2	7	1	1
13	Mallia (b)			/	5	7		6	2		7	4	1	2	2	4	5	3	3		1	1	2	1
22	Phaistos (a)				/	15		16	3		11	3	1	1	1	3	3	6	2		2	7	2	1
22	Phaistos (b)					/		17	4		13	6	1	2	2	6	6	9	4		2	8	3	1
28	Archanes							/	4		11	4	1	1	2	4	5	9	3		2	8	2	1
10	Piskokephalo								/		9	3	1	3	4	7	6	7	6		2	5	2	1
28	Juktas										/	8	1	5	5	13	10	14	7		2	8	2	2
9	Karphi											/	1	3	4	6	4	6	4		1	2	2	1
1	Kophinas												/	1	1	1	1	1	1		1	1	–	1
6	Maza													/	3	4	4	5	4		–	2	1	1
5	Modhi														/	4	4	5	4		1	2	1	2
13	Petsophas															/	7	9	5		2	5	1	2
14	Traostalos																/	9	8		1	2	1	2
18	Vrysinas																	/	7		2	6	1	2
8	Zou																		/		1	3	1	2
3	Amnisos																			/	2	–	1	
9	Kamares																				/	–	1	
3	Psychro																					/	–	
2	Skoteino																						/	

II
3. Neo-palatiaI

Max. no. categ. s		Hag.Tria.(a)	Knossos (b)	Knossos (c)	Knossos (d)	Knossos (e)	Knossos (f)	Knossos (g)	Knossos (h)	Knossos (i)	Mallia (c)	Mallia (d)	Mallia (e)	Mallia (f)	Mallia (g)	Mallia (h)	Mallia (i)	Mallia (j)	Mallia (k)	Mallia (l)	Palaikas.(a)	Palaikas.(b)	Palaikas.(c)	Phaistos (c)	Phaistos (d)	Pyrgos-Myr.	Zakros (a)	Zakros (b)	Kato Syme	Rousses	Juktas	Kophinas	Petsophas	Traostalos	Vrysinas	Amnisos	Arkalochori	Chosto Nero	Patsos	Phaneromeni	Psychro	Skoteino
2	Hag.Tria.(a)	\	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-
18	Knossos (b)		\	3	1	1	1	2	3	7	2	2	-	2	-	3	1	3	4	6	2	-	-	3	4	5	10	3	8	3	14	3	2	3	2	1	4	1	2	2	8	5
4	Knossos (c)			\	2	-	-	-	-	2	2	1	-	3	-	1	-	2	2	1	2	-	-	2	1	2	4	1	2	1	3	2	-	1	1	1	1	1	1	1	1	1
7	Knossos (d)				\	1	-	-	2	4	1	1	-	3	-	3	1	2	3	2	4	-	-	1	2	2	4	1	4	1	1	3	-	1	1	1	2	2	1	1	3	2
2	Knossos (e)					\	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	1	1	1	1	-	-	1	-	-	-	-	-	-	-	-	1	1
3	Knossos (f)						\	1	-	1	-	-	1	-	-	-	-	1	1	1	1	-	-	1	2	-	1	1	2	3	3	1	-	-	-	-	-	-	-	-	-	2	2
3	Knossos (g)							\	1	2	-	-	-	1	-	1	1	2	2	1	1	-	-	1	2	1	2	1	3	2	3	2	1	1	1	-	-	-	1	1	2	2
8	Knossos (h)								\	4	1	1	-	2	-	2	1	2	4	2	2	1	-	2	2	1	4	1	2	3	6	4	1	2	1	1	2	1	2	2	3	2
15	Knossos (i)									\	1	4	1	4	1	5	1	3	6	6	6	1	-	5	6	5	12	3	9	4	13	9	1	1	-	1	6	2	1	1	6	6
3	Mallia (c)										\	-	-	1	-	1	-	2	1	2	1	-	-	1	1	-	2	1	1	1	3	1	-	1	1	1	1	1	1	1	2	2
7	Mallia (d)											\	1	-	1	3	2	1	1	2	1	-	-	2	2	1	5	1	4	1	5	4	1	-	-	-	4	1	1	1	2	3
3	Mallia (e)												\	-	1	1	-	-	-	-	-	1	-	1	2	-	2	1	1	1	2	1	-	-	1	-	-	-	-	-	1	1
7	Mallia (f)													\	-	3	-	2	2	1	2	1	-	3	1	3	6	1	4	1	4	3	1	-	1	1	1	1	1	3	2
2	Mallia (g)														\	1	-	-	-	-	-	1	-	1	-	1	-	1	2	1	2	1	1	-	-	-	-	-	-	-	-	-
9	Mallia (h)															\	-	3	2	3	1	-	-	2	4	3	7	1	6	2	5	5	1	1	-	1	2	1	1	1	2	3
4	Mallia (i)																\	1	2	1	1	-	-	1	1	-	1	-	3	1	2	1	1	1	1	-	2	1	2	2	3	1
8	Mallia (j)																	\	4	4	2	-	-	3	4	2	4	2	5	3	5	5	1	2	1	1	2	1	2	2	4	3
15	Mallia (k)																		\	5	5	1	1	3	6	2	6	3	8	5	10	7	2	2	1	1	5	2	2	2	9	5
13	Mallia (l)																			\	3	1	1	4	3	3	7	4	9	2	11	5	2	2	1	1	5	3	2	1	9	4
6	Palaikas.(a)																				\	-	-	3	4	2	5	3	3	3	6	5	-	1	-	1	4	2	1	1	4	3
4	Palaikas.(b)																					\	1	2	1	-	2	1	-	-	2	1	1	-	-	-	1	-	-	-	2	1
4	Palaikas.(c)																						\	1	1	-	-	1	2	-	2	-	1	-	-	-	-	-	-	-	1	-
9	Phaistos (c)																							\	4	3	7	4	5	2	6	5	1	1	-	1	5	1	2	2	5	5
13	Phaistos (d)																								\	1	8	3	8	6	9	8	2	2	1	1	4	2	2	2	7	5
9	Pyrgos-Myr.																									\	6	2	5	1	6	3	1	1	1	-	3	-	-	-	3	2
27	Zakros (a)																										\	3	11	4	15	9	2	1		2	6	1	1	1	7	7
5	Zakros (b)																											\	3	2	5	3	2	2	1	1	3	1	1	1	4	2
28	Kato Syme																												\	5	16	10	5	4	3	1	6	3	3	3	14	9
9	Rousses																													\	8	6	2	1	1	-	2	-	1	1	5	4
35	Juktas																														\	14	7	4	3	1	7	4	2	2	18	10
15	Kophinas																															\	4	3	2	1	4	3	2	2	10	6
7	Petsophas																																\	3	3	-	1	-	1	1	5	1
4	Traostalos																																	\	3	1	2	1	2	2	4	1
3	Vrysinas																																		\	-	1	-	1	1	3	-
2	Amnisos																																			\	1	1	1	1	1	1
10	Arkalochori																																				\	2	2	2	6	6
4	Chosto Nero																																					\	1	1	4	1
4	Patsos																																						\	3	3	2
3	Phaneromeni																																							\	3	2
24	Psychro																																								\	9
14	Skoteino																																									\

Max. no. categ.s	II 4. Neo-palatial II	Knossos (j)	Knossos (k)	Knossos (l)	Kato Syme	Juktas	Psychro
7	Knossos (j)	/	2	3	1	1	1
7	Knossos (k)		/	1	1	1	1
6	Knossos (l)			/	1	2	1
2	Kato Syme				/	2	1
5	Juktas					/	2
2	Psychro						/

	II 5. Post-palatial	Gazi	Gournia	Hag.Tria.(b)	Hag.Tria.(c)	Kannia	Karphi (a)	Karphi (b)	Karphi (c)	Karphi (d)	Karphi (e)	Karphi (f)	Karphi (g)	Katsambas	Keph.Chond.	Knossos (m)	Knossos (n)	Knossos (o)	Knossos (p)	Palaikas.(d)	Palaikas.(e)		Kato Syme	Kremasma		Juktas		Amnisos	Arkalochori	Patsos	Phaneromeni	Psychro	Skoteino
11	Gazi	/	5	3	2	8	3	1	3	2	3	2	3	3	2	5	1	1	4	4	3		2	1		3		2	1	1	1	1	1
9	Gournia		/	1	3	5	3	1	3	2	3	2	2	1	1	5	-	1	3	3	1		2	1		3		1	1	1	1	1	1
8	Hag.Tria.(b)			/	-	7	3	2	3	1	3	4	3	3	3	4	1	1	2	1	2		2	1		1		1	1	1	1	3	1
16	Hag.Tria.(c)				/	6	4	4	1	2	3	4	3	1	1	3	2	1	2	3	3		8	1		2		1	1	6	3	5	2
24	Kannia					/	7	5	4	4	7	7	7	5	5	8	2	1	6	5	6		6	3		5		2	2	5	1	9	2
11	Karphi (a)						/	4	2	3	4	4	2	3	1	4	1	-	3	1	1		4	-		3		1	1	1	1	3	1
8	Karphi (b)							/	3	2	4	5	6	2	1	2	2	-	1	-	2		3	1		3		1	1	2	1	4	2
7	Karphi (c)								/	3	4	4	6	2	1	2	-	-	4	2	3		1	-		3		1	1	1	1	5	1
7	Karphi (d)									/	5	4	3	2	2	2	-	-	2	1	2		3	-		2		1	1	2	1	3	1
9	Karphi (e)										/	6	5	2	3	4	1	-	3	2	3		3	1		4		1	1	3	1	6	1
13	Karphi (f)											/	6	3	3	5	2	-	3	2	4		7	1		4		1	2	3	2	8	1
12	Karphi (g)												/	2	2	5	1	-	4	2	5		3	1		6		1	2	2	1	7	2
6	Katsambas													/	2	2	1	1	3	1	2		2	-		2		2	2	1	1	3	1
7	Keph.Chond.														/	4	-	-	-	1	3		2	-		2		-	1	1	-	3	1
13	Knossos (m)															/	2	1	2	4	5		3	-		4		-	1	2	1	4	1
4	Knossos (n)																/	1	-	-	-		1	1		1		1	-	2	-	1	-
2	Knossos (o)																	/	1	1	-		-	-		-		1	-	2	-	1	-
10	Knossos (p)																		/	3	4		3	-		4		2	1	1	1	5	2
6	Palaikas.(d)																			/	3		1	-		1		1	-	1	-	4	-
7	Palaikas.(e)																				/		4	-		3		1	2	2	1	6	3
15	Kato Syme																					/	1	7	2	2	5	4	10	4			
3	Kremasma																					/	1	-	2	-	-	1	-				
12	Juktas																					/	2	2	1	2	7	3					
4	Amnisos																						/	1	1	1	3	1					
2	Arkalochori																							/	1	1	2	1					
8	Patsos																								/	2	4	1					
4	Phaneromeni																									/	3	2					
16	Psychro																										/	4					
5	Skoteino																											/					